A STUDY OF THE INFORMAL JEWEL LOAN MARKET IN KERALA

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*I hereby affirm that the research for this dissertation titled "**A study of the Informal Jewel Loan Market in Kerala**" being submitted to the Jawaharlal Nehru University for the award of the Degree of Master of Philosophy in Applied Economics was carried out entirely by me at the Centre for Development Studies, Thiruvananthapuram.*

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Certified that this dissertation is the bonafide work of Sri. Sabu M. George and has not been considered for the award of any other degree by any other university.

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CHAPTER 1

INTRODUCTION

The phenomenal expansion of formal credit in rural India over the last few decades has not reduced the importance of informal credit to any significant extent. Informal credit is still very important in many economic activities (Iqbal.1988, Bell 1990, Organisation for Economic Co-operation and Development 1991, Asian Development Bank 1992). However, informal credit has its own regional specificities. In east and central India, landlords and agriculturist money-lenders still predominate. In Andhra Pradesh, Tamilnadu and Karnataka traders play an important role; but everywhere professional money lenders (PMLs) are dominant. As far as the security for credit is concerned, gold (jewellery)[1] is preferred in the formal and informal credit markets of South India, especially in Kerala and Tamilnadu.

The literature on informal credit is voluminous and the issues discussed are many. However, there are few studies on the segment of gold loans. The major characteristics of gold loans are that the collateral, gold, is perfectly marketable, the price is known to both the lender and the borrower and the fluctuation in price of gold is minimal[2] in the sense that nominal price has steadily gone up in India in the recent past. Hence, it may be worthwhile to look at various aspects of gold loans.

[1] Gold and Jewellery/jewels are used interchangeably throughout the thesis.

[2] Annual percentage change of gold price in India is positive and at a steady level during 1980's.

1.1 Objectives of the Study

This thesis addresses the question of gold loans in Kerala. It seeks to show the prominence of gold loans in both the formal and informal credit market in Kerala. Although, jewel loans (pledging gold) are traditionally associated with money lenders (informal sector), the formal sector in Kerala has also taken to this form of lending. This is, despite the notion that it is against the principles of modern commercial banking. However, the operation of the jewel loan market in the formal and the informal sectors is different. In the formal sector, it has been fairly regulated, both the amount advanced per unit of gold and the rate of interest charged are regulated or centrally determined. This implies that there is very little scope for the operation of market forces. But informal jewel loans are an active market. There are hardly any studies[3] on issues like what determines the amount advanced per unit of gold; how the rate of interest is determined; and the question of default in the informal jewel loan market. The objective of the study is to address these specific issues.

[3] Most of the studies on credit market after Bhaduri's (1977) work which set off a discussion on different aspect of collateral pricing and joint determination of interest rate and collateral price. That is, these discussion are concerned about the relation between general (factor) collateral and the rate of interest. Here, gold is a distinct asset collateral whose market price is known to both lender and borrower. Therefore, the resale value of collateral and its valuation by the lender are same. However, it has to be accepted that there is a difference between resale value and market value of collateral which is around 10 percent of market price of gold. In short, the lender doesn't have much control over the valuation of collateral which is a distinctive feature of the jewel loan market. This raises a serious issue against the existing theoretical literature on credit market because it doesn't provide any analytical framework to understand the working of jewel loan market. That is, in jewel loan market, the terms of credit contracts are determined entirely in a different way.

1.2. Review of literature on credit market

A common characteristic of many developing countries is the co-existence of both formal and informal financial sectors in their economies--a situation commonly denoted as financial dualism. The literature on rural credit markets in developing countries has evolved along three Schools of thought. The first approach pioneered by Bottomley (1963), viewed this problem in terms of shortage of capital. That is, financial intermediation in rural areas is poorly developed because savings are low. Therefore, the state intervention through formal credit institutions is considered essential to increase the flow of credit to rural areas and thereby displace village money lenders from the rural credit scenario. This would liberate the rural people from the clutches of the money lender. But this has not materialised. Instead, the money lender continues his dominance over rural credit.

The second school of thought, termed as financial repression model, argued that the informal financial sector is a response to the shortcomings of the formal sector resulting from financial repression[4]. It contends that financial liberalisation (removing the fetters on the formal sector) would reduce the activities of the informal sector (McKinnon 1973, Shaw 1973, Fry 1982, 1988).

According to the third school of thought, financial dualism can be explained more by the intrinsic dualism of economic and the

[4] Financial repression usually refers to the effects of close regulation to the financial system and to the various forms of restriction that the government impose on the activity of financial institutions.

social structures in developing countries and the attachment of the rural population to traditional values and customs than by inefficiency of the formal sectors. Thus, the formal financial sector would itself be subjected to dualism more than it engenders it. So, they argue that even in a liberalised financial system, the informal financial sector would be present. The strength of informal financial sector is that it is firmly rooted in traditional values and practices. These transactions are flexible and speedy and respond to the needs of the population who have found themselves excluded from the formal sector. That is, dualism can be ascribed as much to financial repression as to the population's attachments to (indigenous banking systems) traditional systems of credit market.

It is generally accepted that the informal sector has some comparative advantages in providing loans to borrowers, like low transaction costs, relatively localised transactions (implying highly personalized loan and personal bondage) and flexibility in respect of loan repayments, rate of interest and collateral requirements. The formal sector is subject to a variety of bureaucratic procedures, which leads to high transaction costs and sometimes outweighs the advantage of low rates of interest. Thus, the informal sector has a number of advantages over the formal financial sector. This is the background in which the literature on credit market concentrates more on understanding the structure, organisation and operation of the informal sector. (Bhaduri 1977, Mundle 1979, Bharadwaj 1985, Nagaraj 1985, Bhattacharya 1985, Ramachandran 1990, Swaminathan 1991,1993, OECD 1991, ADB 1992).

Most of the studies on the credit market try to explain the structure and functioning of informal credit market in terms of power relations in the credit market. In particular, they discuss the historical context and the system of production in which credit transactions take place. They dismiss the supply-demand and lender's risk explanation of usurious interest rates (Bottomley, 1963, 1964, 1975) and hence focus on the power of the lender, differential valuation of assets and consequent forced default. In other words, according to Bhaduri, "the functioning of unorganised rural money market is inextricably interwoven with personal power relations in the villages, consequently giving such markets their personalized character" (Bhaduri 1977, p:343). According to Bharadwaj "exchange relations may be described in terms of a hierarchical structure. In any market, there are dominant parties mostly belonging to the substantial surplus households who set the pattern as well as the terms and conditions of exchange " (Bharadwaj.K, 1985, p:335).

Following Bhaduri, many studies (Rao, 1980, Basu, 1984,1989, Gangopadhyay and Sengupta, 1987) have attempted to focus on the underpricing of the asset by the lender and thereby the forced defaults in the credit market. This explanation is valid only when the asset is a factor of production (land) or an output (crop) which is either a source of regular flow of income or a flow in itself. But in the case of any other asset, like gold and silver which have only an asset value, it serves the purpose of securing only principal and interest in a particular transaction or in money lending as an ongoing business. In the collateral based lending like jewel loan market, forced default is not a serious issue and

it is against the interest of professional money lender (Narayana.D 1994)[5]. However, it was argued that the forced defaults are not very large even in factor collateral loan market either because the borrowers have few assets or because there are obstacles to acquiring them (see Raj, 1979). Also, it is possible that the collateral loan market are interlocked with other markets like labour market. Then, the lender can extract surplus from the borrowers through the labour contracts. And hence, his nominal rate of interest may be low and he may show less interest in appropriating collateral in the event of default. The defaults, in the case of asset collateral, gold, which do not have such interlinkages with other markets, are also very low. But the reasons for low default rate in such (jewel loan) markets would be

[5] Professional money lender (PML) has a certain area of operation. He has fair knowledge of households in that area. This is essential because he would not like to take risk of lending against stolen gold and jewellery. It is almost always the case that whenever he does not know a person who approaches him for a loan he would insist on somebody introducing him. Let N be the number of households within the area of his operation and let the same N be taken to represent the quantity of gold with them. (However, it is possible to think of a situation in which accumulation of gold in the community occurs simultaneously with an increase in the number of PMLs over the years. But we restrict our model into a static frame work so that fixed quantity of gold circulates in the informal jewel loan market). At any point of time only a certain proportion of the stock enters the PML market. Let this proportion be 'p'. This would mean that as the quantity of gold pledged with the PML goes up, the chance of new borrowers coming forward become smaller.

Let L be the amount advanced per unit of gold and 'r' rate of interest charged. Then the income of the PML may be represented by 'NpLr'. What does forced default do? As N is the total stock and n is the quantity of gold pledged such that n=pN, (N-n) is the quantity of gold with the households. Repayment and release of the pledged gold creates condition for pledging and borrowing. It is this circulation of gold which ensures money lending as an on going process. Suppose a proportion 'q'of the loans is defaulted. Then 'qn' quantity of gold goes out of this circulation. Then effective stock becomes (1-q)N and the income of the PML, (1-q)NpLr. This is lower than NpLr and hence forced default may not be in the interest of the PML.

different from the factor collateral loan markets. As mentioned earlier, gold serves only for securing the principle and interest for credit market, so that any kind of loss of gold would mean a fall in the capacity to borrow, which is an ongoing process for the money lender. His volume of business would be adversely affected by the defaults. Therefore, default (transfer of collateral) can be only a last resort in the jewel loan market. Hence, many explanations of the characteristics of informal credit market in the literature are irrelevant to explain the dynamics of jewel loan market.

1.3. Segmentation

The credit markets in rural areas of developing countries tend to be segmented, meaning that a lender's portfolio of loans is concentrated in one particular geographical area. Therefore, the common shocks to incomes of a region affect the operation of credit market, if all borrowers of the region fail to repay their loan at the same time. Also, the cost of segmentation is that funds fail to flow across region, even though there are potential gains from doing so. However, this total segmentation provides an advantage to the lending institutions in the sense that it can use local information and enforcement mechanism, which would help the credit market to overcome some of its inherent constraints by providing better information about its borrowers, more accountability to its customers...etc. Therefore, credit markets are segmented, if the lender has a tendency to allocate his funds to the geographical area where he is located so that he has a better information about

the borrowers and also depositors prefer to invest their funds in local financial institution than in national banks.

The recent theoretical literature on agrarian credit market, (Swaminathan M, 1991) using empirical evidence from South India, is concerned with the factors underlying the segmentation of the credit market, as formal and informal. They are (a) the type of collateral accepted as security by lenders in the two sectors and (b) the purpose underlying the demand for credit.

According to Swaminathan, "in contrast to the formal sector, lenders in the informal sector accept a wide range of assets and asset substitutes as collateral. Also credit from the formal sector, was allocated primarily for use in productive activities". But the above two reasons are not very precise and comprehensive in explaining the segmentation of credit market in a region where both sectors accept the same collateral and lend for both productive and consumption purposes. This is particularly true in the segment of jewel loan market.

In credit market, if the borrower feels that he is not comfortable under a particular money lender, he can move to another one of same locality. This is possible only if there is no interlinkages in the credit market, otherwise he has to take all other factor relations along with credit relation. If there is no interlocked transactions, other kind of segmentation arise from "barriers to mobility of funds" across the regions. In most credit markets, segmentation occurs due to the above two reasons but in jewel loan market segmentation or fragmentation can also be

interpreted from the point of view of individual preference. If a borrower feels that his collateral (gold) is secure in the hands of a particular PML, he will go there and pledge his gold. Whenever, he feels uneasiness about his credit contract with that PML, he can move out from that contract and search for other PML of the same locality or other place where gold is a preferred asset in the portfolio of the lender. Similarly, lender has also some kind of customer preference in the sense that he would accept the gold only on the basis of fair knowledge of the borrower either personally or through a third party. Therefore, the sources of segmentation in the credit market are (1) the best collateral of each region, (2) the operation of credit market and (3) the preference of lender and borrower.

In any financial system especially in developing countries[6], securities (collateral) play a significant role in allocation of funds. Those who have the best security to offer would get a larger share of loanable funds. But the 'best' security varies from region to region. For example, in Kerala, gold occupies a place second to land and buildings in the asset structure of households (Boumans and Houtman, 1988). They are the most preferred assets for lenders and borrowers in this region. Therefore, formal and informal lenders accept these assets as collateral, gold for short term loans and land for long term loans. In other words, gold(jewel) loans play an important role in the institutional lending as well as the indigenous banking activities

[6] The financial sector has an inherent tendency to allocate resources to investors with the best security, rather than those with the best investment schemes (Kitchen,1986, p:95).

of this region. But the fragmentation of jewel loans as formal and informal can be explained in terms of its operational difference.

In short, each region has its own security preference which depends on the socio-economic and cultural aspect of respective region (see Swaminathan 1991, pp:166,170). But formal financial sector can't assimilate all aspects of indigenous banking culture in each region. Therefore, the segmentation of credit can be possible on the basis of type of collateral preferred by the financial institutions (segment of gold loans). And even within the segment of gold loans, fragmentation is possible because of their operational difference and the individual preference of lender and borrower.

1.4. Terms of credit contract

The terms of contract is very important in credit markets. The major factor that determines the contract is the rate of interest. According to Bottomley (1963, 1964a, 1964b, 1975), the rate of interest in the credit market can be explained in terms of lender's risk (recently Gupta (1991) provided some empirical evidence in support of lenders risk hypothesis) and factors like supply-demand and administrative costs.

As mentioned earlier, Bhaduri and others dismiss these explanations of high rates of interest prevailing in the informal credit market and focus on the relative power and bargaining strength of the parties who enter into a contract. Normally, lenders have monopoly power in determining the value of collateral

and thereby underpricing of assets. Hence, forced default is quite usual in informal credit market. But there are different types of collateral available in the credit market. Bhaduri's theoretical explanation cited above is true only in those cases of collateral based lending where assets are factors of production like land or an output which is a source of regular flow of income or flow in itself. If collateral has only an asset value and it serves only for securing the principal and interest, then that loan market tells a different story of collateral based lending. The jewel loan market is an example of this.

A major assumption in the literature on credit markets is that uncertainty and asymmetric information prevail in the credit market. This plays an important role in determining the terms of credit contract. Under this assumption, how can equilibrium in the credit market be achieved: Stiglitz and Weiss(1981), in their study show that equilibrium in the loan market may be characterised by credit rationing. The increase in both collateral requirements and the rate of interest potentially leads to decrease in the lenders expected return on loan; through adverse selection effects and incentive effects. Hence, neither instruments will necessarily be used to equate the supply of loanable funds with the demand for loanable funds[7]. The banks are very concerned about the expected return which depends on the probability of repayments. So the banks would like to identify borrowers who are more likely to

[7] The increasing rates of interest or increasing collateral requirements could increase the riskiness of the bank's loan portfolio, either by discouraging safer investors (adverse selection effect) or by inducing borrowers to invest in riskier projects (incentive effect). Hence that could decrease the bank's profits (Stiglitz and Weiss, 1981).

repay. It is difficult to identify good borrowers. In short, the key observation here is that the effect of rate of interest are two fold. One is, it serves the usual allocative role of equating supply and demand for loanable funds. Second, it also affects the average quality of the lender's loan portfolio. Therefore, the lender may not use rate of interest to clear the market, he may instead fix the interest rate and go for credit rationing and use a variety of screening devices, like collateral.

In economic literature, the assumptions regarding credit market are asymmetric information (related to information regarding bankruptcy or credit worthiness of the borrower) and uncertainty (related to profitability of borrower's project). In the case of asset collateral based lending like jewel loan market (collateral serve the purpose of securing the principal loan amount), the return from the borrower's productive activity (uncertainty) and his ability to repay (asymmetric information) have a different interpretation. Both assumptions are based on the market price of collateral (gold) and its movement. Since, the price of collateral is known to both the lender and the borrower (symmetric information) and also no uncertainty regarding the price of collateral because it has steadily gone up (and not fallen) over the recent past. Therefore, the Stiglitz-Weiss model of the credit market seems to have no relevance even to the lending institutions in a rural context, where jewel loans are very prominent in their credit scenario. Hence, many concept and methods developed in the context of credit market of the industrialised economy turn out to be inadequate for analysing credit markets in less developed economies.

Robert J Barro (1976) proposed a theoretical model in which collateral is a mechanism for enforcing loan contract (enforcement problem is defined as a situation in which the borrower is able but unwilling to repay). The collateral functions in two ways in his model.

1. It provides an incentive for the borrower to repay the loan.
2. The default implies that the property right to the collateral is transferred to the lender.

The basic assumption of the model is that lender's valuation of collateral is much below the borrower's valuation because of the transaction cost involved in the property right transfer of collateral. The nature of the loan contract in this model is such that at the end of the period, the borrower either repays the loan in full or the claim of collateral is transferred to the lender. The decision is made solely on the basis of the relative value of collateral and amount due. Whenever, the value of collateral at the end of the period is below the amount due, default occurs. In this model, lender (borrower) is concerned only about expected return (cost) and relation between transaction cost and interest rates. Therefore, the model assumes the rate of interest(r) is the varying factor and principal(L) is assumed to be more or less fixed. That is, the rate of interest is influenced by the transaction cost of the collateral and the expected return from the given loan amount. The given loan amount is not determined by the value of collateral. In short, Barro gave more importance to transaction cost in determining credit contract.

Therefore, the literature on collateral based lending does not consider a situation of change in the value of collateral in determining the size of the loan(L). The rate of interest is given from outside the model and is fixed over the period. This is the major feature of informal jewel loan market.

In the jewel loan market, the value of jewels (gold) and loan amount are positively correlated. Therefore, loan amount is the varying factor instead of the rate of interest. Also it has to be noticed here that the varying loan amount has no influence in determining the rate of interest. The rate of interest is determined on the basis of the lender's expectations regarding the duration of loan repayment, which is clearly set out from outside the model and normally fixed over the period. In most credit markets, the loan period depends upon the quality and type of collateral and the purpose (urgency) of the loan. But in the jewel loan market, duration of loan and rate of interest are inversely related. Once the rate of interest is fixed, the duration of loan is implied in that decision. Therefore, once he fixes the rate of interest, he has no control over any of the other variables, especially on the loan amount. However, he has the freedom to choose low 'r' with long duration or higher 'r' with shorter duration. That is, there is a trade- off between the duration of loan and rate of interest in the jewel loan market. In sum, in jewel loan market, the rate of interest and the duration of loans are exogenously determined and the loan amount is endogenously determined according to changes in the gold price (P).

If lender's interest is for appropriating collateral which lead to forced default, he should be offering a high rate of loan amount(L/P), so that, at given rate of interest, default would take place even before the expected duration corresponding to observed rate of interest. Hence, no implicit rate of interest calculation is needed in the jewel loan market. This is against the assumption by Bhaduri (1977) that usurious rate of interest (underpricing of collateral) prevailing in the credit market that leads to forced default.

In almost all credit markets, lender's risk is higher than the borrowers risk because the borrowers make no assessment of their own reliability as debtor, lender doesn't have adequate information for a correct assessment (asymmetric information). Therefore, the difference in risk is clearly due to this information gap. However, the additional investment by the lender in collecting information would be possible and profitable. But this would lead to a difference in the valuation of collateral due to transaction cost (cost incurred for collecting information regarding credit worthiness of the borrower, viability of project...etc). This means that, in credit market, there is always trade off between information cost and transaction cost. But in jewel loan market, the borrowers risk is higher than the lenders risk, since his collateral (gold) is with the lender. Therefore, transaction cost doesn't play much role in determining the credit contract as in other credit market.

In short, most of the assumptions of collateral based lending in the literature may be more appropriate for reproducible or flow

assets like land and crops, not for gold and silver, which has a market and its market price is known to both parties. In this specific case, it is interesting to look at what determines the amount advanced and interest rate charged and the question of default. The present study is an attempt to discuss these issues.

1.5. Data source

The study uses secondary sources like AIDIS (All India Debt and Investment Survey) reports and some RBI (Reserve Bank of India) research studies and NABARD (National Bank for Agriculture and Rural Development) publications. Primary data used in this study are based on two surveys. One is collected from the villages of (1) Thirunavaya, in Malappuram district. (2) Thalikulam, in Trichur district.(3) Annikadu, in Kottayam district. (4) Ezhukone, in Quilon district. This data had been collected for the study of informal rural credit market in India, in 1987, by Centre for Development Studies for the Asian Development Bank. The survey collected information on the indebtedness of households and sought details of the purpose of borrowing, rate of interest and collateral, duration on each loan, total amount borrowed, repaid and outstanding. The second survey is conducted among a few PMLs in Thiruvananthapuram city to enquire the determination of loan amount, rate of interest and duration of loan in the informal jewel loan market.

1.6. The chapter Scheme of the study

Including this chapter, the study has five chapters. In line with the objectives of the study, Chapter 2 presents an account of the prominence of the jewel loans in South India, particularly in Kerala. Because of the limitation of secondary data in showing the actual size of the informal jewel loan market, an analysis of primary data is taken up in Chapter 3. In the light of findings of the third chapter, an attempt has been made, in Chapter 4, to determine the loan amount per unit of gold, the rate of interest and the pattern of default...etc. Chapter 5 discusses the concluding observations emerging from this study.

CHAPTER 2

THE PROMINENCE OF GOLD(JEWEL)LOANS IN KERALA.

The decennial rounds of All India Debt and Investment Survey (here after AIDIS), since 1951-52, are the most comprehensive source of data on incidence of debt, amount borrowed, distribution of debt across the sources, security, rate of interest...etc[1]. These surveys provide the demand (borrower's) side information on a regular basis and are the only sources for any inter-temporal comparison on these characteristics on an all-India basis. In this chapter, an attempt is made to bring out certain characteristics of the debt scenario in India, namely the prominence of gold (jewel) loans in the South Indian states in general, and Kerala and Tamil Nadu in particular. The regional and temporal pattern is set out with the help of AIDIS data. The data from a Reserve Bank of India (RBI) survey and the regular publications of National Bank for Agriculture and Rural Development (NABARD) are analysed to bring out the all pervasive nature of jewel loans in Kerala.

This chapter is organised into three sections. The first section looks at the issue from the demand side. The second section deals with the problem from the supply side which consists of lending institutions from the formal sector. The third section

[1] This does not mean that there are no problem of comparability and reliability of the data. This aspect is gone into later in the chapter.

presents the problems of comparability and reliability of AIDIS data.

2.1. Incidence of Rural Debt Against Jewels: A Demand Side Evaluation

The various rounds of AIDIS provide data on the changing profile of rural indebtedness over the last three decades. Data on percentage of indebted households to the total households, average amount of debt outstanding per household, distribution of debt by agency, purpose,security.... etc are provided in these reports. A comparison of data from the 1961, 1971, and 1981 AIDIS showed that there has been a marked shift in the proportion of households reporting and average amount per reporting household (see Table 2.1).

It is evident from Table 2.1 that the proportion of reporting households (the incidence of debt) at the all India level has come down sharply from 48.8 percent to 19.7 percent over 1961-62 to 1981-82. The sharp fall in the incidence of debt of about 29 percentage points has come about in two steps. The fall during 1961-62 to 1971-72 (first period) was of the order of 21 percentage points and during 1971-72 to 1981-82 (second period) was of the order of 8 percentage points. The first period showed a fall in incidence of debt across almost all the states, except Punjab and Orissa. The second period witnessed a fall in incidence of debt in all the states, except Kerala, Andhra Pradesh and Tamil Nadu. Kerala in particular, showed a sharp increase in the debt of about 10 percentage points.

Table 2.1 : Incidence of Debt of Rural Households over the Years and Across the States

States	1961-62			1971-72			1981-82		
	P	A	B	P	A	B	P	A	B
Andhra Prade:	51.6	209	406	26.5	155	584	29.2	664	2275
Assam	20.1	33	163	11	31	281	4.7	29	602
Bihar	40.3	93	230	17.2	62	360	13.7	114	833
Gujarat	54.7	305	558	25.1	231	922	14	478	3405
Haryana	-	-	-	36.2	537	1483	15.4	841	5457
HimachalPrad:	-	-	-	23	234	1017	10.5	310	2967
JammuKashmir	50.4	148	293	34.3	174	508	15.6	392	2514
Karnataka	59.4	273	461	28.4	239	842	16.1	506	3137
Kerala	61.3	176	288	23.8	136	572	33.8	919	2720
Madhya prade:	45.7	150	329	30.5	179	588	17.6	349	1984
Maharashtra	43.4	167	386	31.8	200	628	21.7	659	3035
Orissa	18.8	47	247	17.6	54	307	13.6	194	1428
Punjab	59.5	310	521	58.6	723	1234	31.1	1659	5336
Rajasthan	71.5	392	548	42.3	380	894	18.5	639	3461
Tamil Nadu	52.9	233	440	29.7	192	646	28.5	538	1890
Uttar Prade:	50.8	156	307	30.6	157	513	19	364	1912
West Bengal	52.7	134	255	28.4	100	352	19	196	1031
All India	48.8	180	370	27.7	174	627	19.7	446	2267

Notes:

P- The proportion of rural households reporting(%)
A- The average amount per households(Rs)
B- The average amount per reporting households(Rs)

Source: Reserve Bank of India(RBI), All India Debt and Investment surveys,1961-62,1971-72 and 1981-82. Statistical tables relating to cash borrowings of rural households during the reference periods. Bombay 1965,1978,1989.

Among the states, the 1981-82 survey indicated a high percentage of indebted households in Kerala (33.78) and Punjab (31.09), followed by Andhra Pradesh (29.19) and Tamil Nadu (28.46). In 1961-62, it was high in Rajastan (71.5) and Kerala(61.3), followed by Punjab (59.5), Karnataka (54.4) and Tamil Nadu (52.9). The average amount of debt per reporting household has shown a six fold increase in nominal terms between 1961-62 and 1981-82 at the all India level. If these amounts are adjusted for

the rate of inflation, then in real terms the credit assistance would seem to have come down (Gothoskar, 1988). However, increase in the amount borrowed in nominal terms has shown disparate trends. The increase has been above the all India average in Kerala, Punjab, Maharastra, Karnataka, Tamil Nadu and Andhara Pradesh. The most striking fact has been the increase in Kerala which has been just over the all-India average between 1961-62 and 1971-72. It showed one of the highest jumps between 1971-72 and 1981-82.

A major finding of the last AIDIS (1981-82) is that a significant shift in the source of supply of credit in favour of institutional agencies has taken place (See Table 2.2). At the all India level, among the institutional sources, the share of commercial banks has shown a sharp rise with its over all growth and the share of co-operatives has stagnated. Also, the share of non-institutional agencies (informal) has declined, particularly that of the trader/money lender in total credit supplied to rural households. Unlike at the all India level, in Kerala both commercial banks and co-operative societies have increased their share.

It is evident from Table 3.3 that institutional agencies have replaced the informal agencies like landlords, agriculturist money-lenders, traders and professional money lenders (PMLs) to a great extent. But the table shows that the spread of institutional agencies are not uniform across the states. In Gujarat, Haryana, Punjab, Maharashtra, Karnataka and Kerala have a fairly high percentage of total credit accounted for by the institutional agencies. This has not been so in Bihar, Andhra Pradesh, Rajasthan

and Assam. These states still have borrowers who were indebted to landlords and agriculturist money lenders. It is reflected in the large proportion of total credit borrowed against high rates of interest (above 20%). This characteristic of rural credit has already been theorised by many, for instance Bhaduri (1977). But the pervasive reality of the prominence of PML has not attracted such studies.

Table 2.2 : Borrowing of Rural Households by Credit Agencies

credit agency	All India						Kerala					
	1961-62		1971-72		1981-82		1961-62		1971-72		1981-82	
Institit-utional	P	A	P	A	P	A	P	A	P	A	P	A
Govermt	1.5	4	1.4	5	0.7	19	0.8	1.8	0.3	3	1.2	24
Co-op:	7.6	25	3.4	26	4.5	117	7.2	20.5	6	39	13.2	308
Comm:Bank	0.3	1	0.2	3	2.5	103	4.8	6.9	2.3	10	10.4	276
Others	-	-	-		0.2	4	-	-	-	-	0.8	22
Total(I)		30		35		244		29		52		630
Non-insti tutional												
Landlords	0.6	1	2.5	11	1.2	17	3	2	0.8	2	0.1	1
Trads\MLs	33	102	16	86	6.8	104	15.2	32	8.1	36	7	73
Relatives	7.4	16	5	20	3.8	55	11.6	20	5.9	20	7.1	176
Others	15	31	4.7	22	2.0	26	48.3	94	5.5	26	2	39
Total(N)		150		139		202		148		84		289
(I+N)	49	180	28	174	20	446	61.3	176	23.8	136	34	919

Source: Same as in Table 2.1

It may be seen from Table 2.3 that the share of the total credit advanced by the PML is significant and prominent in all the states except Jammu and Kashmir, Gujarat and Maharashtra. As evident from Table 2.2 the share of trader/money lender has fallen in Kerala from 15 to 7 percent, but this fall has not been as

spectacular as at the all India level (33 percent to 6.8 percent). This implies that the PML are relatively prominent in Kerala.

Table 2.3 : Non-Institutional Credit, Rate of Interest-- 1981-82
(Rural Areas-- All Households)

State	Distribution of cash dues outstanding (%) by			
	Institu: Agencies	Land lord Agr: M.L	Profess: M.L	Rate of inter: (above 20%)
Andhra Pradesh	40.8	25.5	9.7	29.7
Assam	30.0	2.0	4.0	8.2
Bihar	47.0	29.9	4.9	27.7
Gujarat	70.0	3.8	1.7	6.9
Haryana	75.8	7.4	8.9	16.9
Himachal Pradesh	74.2	4.8	4.2	1.7
Jammu & Kashmir	43.6	1.2	0.4	2.4
Karnataka	78.1	8.3	3.4	6.2
Kerala	78.7	0.2	3.6	8.6
Madhya Pradesh	66.0	8.7	15.7	27.7
Maharashtra	86.5	2.1	1.3	4.7
Orissa	81.9	2.1	5.7	11.9
Punjab	74.1	7.6	4.3	12.5
Rajasthan	40.8	14.4	16.4	34.3
Tamil nadu	44.4	19.8	12.8	30.3
Uttar Pradesh	54.9	16.8	12.1	31.2
West Bengal	65.8	5.8	5.2	14.8
All India	61.2	12.6	8.3	21.7

Source: Same as in Table 2.1

However, the above estimates of indebtedness Tables 2.2 and 2.3 of rural households by agency obtained from the AIDIS could be treated as demand side estimate. Therefore, the problem of underestimation is quite possible, which lead to comparability and reliability problem of the various estimates of the survey. This aspect will be discussed in detail in the third section.

An analysis of the debt due from the rural households according to the nature of security offered by borrowers would throw light on the type of assets which could be used for borrowing.

Table 2.4 : Borrowing of Rural Households During the Years According to Securities.

Securities	INDIA								
	1961-62			1971-72			1981-82		
	P	A	B	P	A	B	P	A	B
Personal Security.	43.7	141	322	16.8	96	572	10.3	207	2002
Surety	4.7	11	234	1	7	700	-	-	-
Crops	0.4	1	250	0.29	3	1034	0.51	13	2549
Immovable Property.	1.7	8	470	0.7	6	857	-	-	-
Mortgage of I .P	2.8	15	535	2.13	20	939	3.41	118	3460
Bullion & Ornaments.	1.7	3	176	0.91	3	330	1.72	23	1337
Share,Govt	-	-	-	0.13	1	769	0.12	2	1667
Agr:commod	-	-	-	0.07	.05	714	-	-	-
Other M.P	0.2	Neg	59	0.19	0.8	421	-	-	-
Others	0.2	1	500	0.18	1	555	5.24	83	1584
No security	-	-	-	8.35	35	419	-	-	-
Total	48.8	180	370	27.7	174	627	19.7	446	2267

Securities	KERALA								
	1961-62			1971-72			1981-82		
	P	A	B	P	A	B	P	A	B
Personal Security	54.7	122	224	7.98	51	639	12.86	273	2123
Surety	3.3	9	272	1.37	10	730	-	-	-
Crops	4.8	9	187	0.56	3	536	0.08	1	1250
Immovable Property	0.9	5	555	0.72	10	1389	-	-	-
Mortgage of I.P	3.5	17	485	1.87	19	1016	5.42	248	4576
Bullion & Ornaments.	1.5	11	96	5.32	13	244	13.8	178	1288
Share,Govt	0.2		141	0.24	2	833	0.04	-	-
Agr:commod	0.2	1	500	0.07	.05	428	-	-	-
Other M.P	0.7	Neg	20	0.18	2	1111	-	-	-
Others	0.7	2	285	0.06	Neg	500	8.82	220	2494
No security	-	-	-	9	28	311	-	-	-
Total	61	176	288	23.8	136	572	33.8	919	2720

Source: Same as in Table 2.1

The AIDIS provides data on the distribution of the following securities. Personal security, surety, crops, first charge on immovable property, bullion and insurance policies ....etc (see Table 2.4). At all-India level, the most prominent was unsecured debt (debt against personal security). However, the proportion of rural households reporting such debt has declined from 43.7 percent in 1961-62 to 10.34 percent in 1981-82. Although in Kerala, the proportion of rural households reporting debt against personal security is higher than (12.86%) the all-India level, its share is lower than the proportion of households reporting debt against Bullion and ornaments (13.82%). And over the years the importance of credit against jewels has increased.

Table 2.5 : Rural Households Borrowing According to Bullion and Ornaments.

State	1961-62			1971-72			!981-82		
	P	A	B	P	A	B	P	A	B
Andhra Prade:	1	4	400	0.69	2	290	1.5	45	3000
Assam	0.1	Neg	87	0.03	Neg	433	-	-	-
Bihar	0.9	1	111	0.35	1	285	2.71	8	295
Gujarat	0.5	1	200	0.03	Neg	400	0.41	5	1220
Haryana	-	-	-	0.39	3	769	0.12	2	1667
HimachalPrade;	-	-	-	-	-	-	-	-	-
Jammu Kashmir	-	-	-	0.5	1	200	0.03	2	6667
Karnataka	1.2	3	250	0.48	5	1041	0.98	14	1428
Kerala	11.5	11	96	5.32	13	244	13.8	178	1287
Madhya prade:	1.9	4	210	1.18	6	508	0.7	8	1143
Maharashtra	0.5	2	400	0.41	2	487	0.59	9	1525
Orissa	0.3	1	333	0.8	1.5	187	0.39	4	1025
Punjab	0.7	1	143	0.23	3	1304	0.24	3	1250
Rajasthan	0.4	1	250	0.45	3	667	0.6	10	1666
Tamil Nadu	5.4	10	185	2.69	8	297	4.54	89	1960
Uttar Prade:	1.2	2	166	0.34	2	588	0.47	3	638
West Bengal	1.8	2	111	1.64	4	244	1.27	9	709
All India	1.7	3	176	0.91	3	329	1.72	23	1337

Source: Same as in Table 2.1

Table 2.5 shows the state wise incidence of debt against the security of gold (bullion and ornaments). In 1961-62, it was 11.5 in Kerala against the all-India average of 1.7. Tamil Nadu reported a figure of 4.54. The same pattern is repeated in 1971-72 and 1981-82. Hoever, the amount borrowed per reporting household against bullion and ornament is one of the lowest in kerala. This is true for all the rounds of AIDIS. It may be inferred that the popularity of gold loans lies not so much in their over all quantum but in their spread as is revealed by the high proportion of rural households reporting debt against gold and ornaments and lower average amount per reporting households.

From the above two Tables 2.4 and 2.5, it is evident that the share of debt of rural households under personal security has shown a steady decline over the years. It has happened in Kerala also. In Kerala, debt against the security of gold ornaments, financial assets, mortgage of immovable property has shown an increase. It has been generally recognized that in a production oriented credit system, the security should not be the only basis for determining the eligibility or size of the loan. However, even under this system the lending institutions have showed their preference for securitised lending (RBI, 1977). One major reason for this could be that it acts as an incentive for timely repayment.

In short, AIDIS shows that the incidence of indebtedness had fallen from nearly 2/3 of all rural households in 1961-62 to less than 1/5 by 1981-82. This decline is a significant indicator of the trend in the size of the credit market. At the same time, the share of institutional credit to the total has gone up, which is

one of the major objectives of rural credit policy in India (RBI, AIRCS, 1954). The survey also shows that in Kerala and Tamil Nadu, incidence of debt against gold ornaments has gone up over the years. The pattern in Kerala is one where the incidence of debt against gold is the highest among the various securities and the amount per reporting household is one of the lowest (see Table 2.5).

2.2. A Supply Side Evaluation.

In this section, we view the problem of debt of rural households from the supply side. That is, from the side of the suppliers of credit. In particular we examine the prominence of jewel loans in the portfolio of the formal sector or institutional agencies. Among the institutional sources, cooperative banks and commercial banks play a major role in rural credit market[2]. Here we set out the pattern of commercial and co-operative banking activities in south India where the habit of obtaining loan against the pledge of gold ornaments has been very popular. While the data for commercial banks is available only for a time point, the data on lending by cooperative credit institutions against the security of gold and silver is available annually from the statistical

[2] The major lending institution in rural areas are commercial banks,various co-operative banks,regional rural banks... etc. It is very difficult to obtain security wise distribution of loan and advances of many formal agencies. However, in 1975, RBI had followed a survey with an objective of finding out the position of commercial banks advances against jewels. This is the only study which gives us detailed information like state wise, purpose wise, size wise and rate of interest charged by commercial banks against jewel loans. Then, we analyse the pattern of the primary agricultural credit societies lending across the states, over the years and its share against jewel loans. In short, the lending pattern of commercial banks and primary agricultural credit societies shows over all nature of institutional credit.

statements relating to cooperative movements (NABARD, 1970-90) in India (see Table 2.10).

With regard to commercial banks, loans against gold and silver ornaments were included in the earlier security wise survey of advances. This survey has been discontinued since 1971 and the new survey (BSR-3) is restricted to obtaining data on advance against a few sensitive commodities among which gold bullion and ornament are not included[3]. Therefore, with a view to find out the position of advances against jewels in commercial banks, RBI initiated a study in 1976 related to the various aspects of jewel loans[4].

As is evident from Table 2.6, as of 1975 December, out of a total 2486 thousand gold loan accounts in India, roughly 41 percent were in Kerala and Tamil Nadu accounted for about 29 percent of the accounts. On the whole, the southern region of the country accounted for 96 percent of all the loan accounts. The average loan amount per account tells a story of its own. Against an all-India average of 869 rupees, the loan per account in Kerala was only 500 rupees. In the neighboring Tamil Nadu it was 1090 rupees and in Karnataka it was 676 rupees. Thus, Kerala reported the

[3].BSR.3 is restricted to obtaining data on advance against a few sensitive commodities which account for a considerable weight in price indices, the supply and price of which are subject to sharp fluctuation and which are generally covered by RBI's selective credit controls.

[4].This survey covers both rural and urban area. The distribution of jewel loan between different population group shows that jewel loans are largely rural and semiurban phenomenon. That is, the survey reported that in Kerala nearly 85 percent of total jewel loans were given by offices in the rural and semi-urban centres.
(Reserve Bank of India (1977), Commercial banks lending against gold ornaments, RBI Bulletin, 31 (10), pp: 617-647 October)

largest number of gold loan accounts in India and the amount per account was the smallest.

Table 2.6 : State Wise Distribution of Commercial Bank's Gold Loans. December- 1975

State\UT	Number of gold loan a\c,(000)	% to All India total	Amount of gold loan (Rs:lakhs)	% to All India total	Average amount(Rs) per a/c
Tamil Nadu	816	28.7	8895	36	1090
Kerala	1162	40.8	5825	23.6	501
Andhra Pra	382	13.4	5489	22.2	1437
Karnataka	341	12	2304	9.3	676
Pondicherr	16	0.6	181	0.7	1131
Southern Region	2717	95.5	22694	91.8	835
Maharastra	59	2.1	870	3.5	1475
Goa,Daman	7	0.3	65	0.3	929
All Other	63	2.2	1090	4.4	1730
All India	2846	100	24719	100	869

Source: Reserve Bank of India, RBI Bulletin (October,1977). Page: 617-647. Bombay.

Table 2.7 presents the data on the distribution of bank offices reporting gold loans, number of advance accounts and the amount advanced against gold as a percentage of total advance accounts and total amount outstanding respectively. Going by all the three indicators, gold loans occupy a prominent position in south India. While less than one fifth of the bank offices report gold loans in the rest of India, in the southern states it is over two thirds. Kerala reported the highest figure of 82 percent. The proportion of the number advance accounts in the rest of India against gold is insignificant at 5 percent. It is over 35 percent for southern states with Kerala reporting 76 percent. The

proportion of amount advanced against gold in the rest of India is below one percent but it is as high as 18 percent in Kerala.

Table 2.7 : Commercial Banks Total Advance Against Gold Ornaments. (State Wise Distribution; Dec:1975)

State	Number of Bank office.			No:of advances Accounts*(000)			Advance outstanding (Rs:lakhs)		
	Reporting total 1	of which gold Loans 2	2 as % of 1	total 3	of which gold Loans 4	4as % of 3	total 5	gold Loans 6	6 as % of 5
Tamil Nadu	2058	1339	68	1359	815	60	103626	8895	8.6
Kerala	1430	1175	82.2	1350	1027	76.1	32896	5825	17.7
Andhra pra	1491	970	65.1	920	381	45.5	46231	5489	11.9
Karnataka	1847	1299	70.3	998	340	34.1	67099	2304	3.4
Pondichery	30	20	66.7	385	162	42.1	1342	181	13.5
Rest of India	13248	2345	17	2680	127	4.7	757639	2025	0.26
All India	20194	7208	35.7	7347	2709	36.6	1008833	2471	2.4

Source: Same as in Table 2.6
* Figures relating to Non-Scheduled Banks are excluded

Table 2.8 presents another facet of gold loans. A significant proportion of the gold loans advanced are for agricultural purposes. The share of agriculture in the total gold loan varied between 40 in Kerala to 78 in Andhra Pradesh. The share of gold loan to agriculture in total direct finance to agriculture was also high. It varied between 21 percent in Karnataka to 76 percent in Kerala.

While the proportion of gold loan for agricultural purpose is low in Kerala, (see the Table 2.8 column: 5) showing that gold loan is advanced for various other purposes. However, three fourths of

the direct finance to agriculture in Kerala is advanced against gold (see the Table 2.8 column: 6).

Table 2.8 : Scheduled Commercial Banks Credit to Agriculture and Agricultural Gold Loan- December,1975.(Rs:lakhs)

State/UT	Direct Finance to Agriculture	Total Gold loans	Gold loans to Agriculture	3 as % of 2	3 as % of 1
Tamil Nadu	8071	8895	5500	61.8	68.1
Kerala	3082	5825	2347	40.3	76.2
Andhra Pra:	10202	5489	4287	78.1	42
Karnataka	5609	2304	1186	51.5	21.1
Pondicherry	267	181	124	68.5	46.4

Source: Same as in Table 2.6

The following conclusions may be drawn on the basis of the discussion so far. The significance of gold loan in the total credit indicates a dependence of commercial banks on collateral based lending. These loans require little pre-sanction work and no post sanction follow up. The borrower's natural anxiety to regain possession of their jewels acts as an incentive for timely repayment. Therefore, default is low in jewel loans market. While the RBI survey of 1976 is useful in providing detailed information on gold loans, its limitation is that it is for a single point of time. Such information for a few more time points would have brought out certain trends. In the absence of such surveys, the data on co-operatives are used to provide some idea about the trends in gold loans.

Among the institutional agencies, co-operatives have a prominent role in providing credit to agriculture since their

inception. The success or failure of the co-operatives in India depends on the strength or weakness of primary agriculture co-operative credit societies (PACCS). They constitute the major retail outlet of short and medium term credit to the rural sector.

Recent World Bank sponsored review study on the agriculture credit system (RBI, 1990) points out that the high delinquency rate in the recovery has depressed the growth of co-operative credit. But there are few states whose achievements in the co-operative credit deployment has been noteworthy. With regard to deposit mobilisation and volume of loan business, the performance of Kerala and Tamil Nadu is outstanding. Repayment of loan together with interest is central to the smooth functioning of institutional credit. The incidence of overdue in the PACCS has been increasing over the years in many states. But in Kerala, overdue is one of the lowest and was around 20 percent during the 1980's (see Table 2.10)

The distribution of co-operative credit by security at two time points (Table 2.9), showed the following patterns. The co-operative credit against anticipated crops is the most important in Bihar, Gujarat, Karnataka and Maharastra. It is almost entirely against surety in Haryana, Rajastan, Punjab and UP and loan against surety is significant in Pondichery, Tamil Nadu and Kerala. The loan against immovable property is very high in Andhra Pradesh, Assam, Karnataka, Kerala, Maharastra and West Bengal. But the most interesting fact is that the loan against gold and silver is significant only in Kerala and Tamil Nadu (see Table 2.9,column 5).

Thus, in both states loans are advanced against gold by both co-operatives and commercial banks and its importance has only increased over the years.

Table 2.9 : State Wise PACCS Classification of Loan and Advances Outstanding at the End of June 1980 and 1990 by Security.

State	Anticipated crops		Immovable Property		Surety		Gold & Silver		Others		Total	
	1	2	1	2	1	2	1	2	1	2	1	2
A.P	9	3	70	3	16	Neg	0.2	Neg	4	93	100	100
Assam	2	-	58	-	2	-	-	-	37	100	100	100
Bihar	16	81	30	4	31	7	Neg	-	23	7.5	100	100
Gujar:	71	64	8	12	5	7	-	-	16	17	100	100
Hary:	-	-	-	-	100	100	-	-	-	-	100	100
H.P	-	-	-	-	100	100	-	-	-	-	100	100
J.K	-	-	-	-	42	-	-	-	58	-	100	-
Karna:	42	58	37	30	10	4	2	2	8	6	100	100
Kerala	2	4	32	26	42	31	23	26	27	13	100	100
M.P	-	-	-	-	-	-	-	-	-	-	-	-
Mahara:	15	28	30	33	0.7	1	Neg	-	54	38	100	100
Orissa	-	-	-	-	-	100	-	-	-	-	100	100
Punjab	-	-	-	0.3	-	83	-	-	-	17	-	100
Rajast:	-	-	4	0.5	59	99	-	-	38	-	100	100
T.Nadu	4	10	11	5	67	43	10	33	4	10	100	100
U.P	1	-	4	-	89	85	-	-	3	14	100	100
W.B	2	-	93	91	3	1	-	-	2	8	100	100
Pondi:	-	-	-	-	97	99	2	-	Neg	Neg	100	100

Notes: 1 = 1980 June, 2 = 1990 June

Source: Reserve Bank of India, NABARD.
Statistical statements for Co-operative Movements in India. Part-1 Credit Societies. 1980, 1990

Table 2.10 provides data over 1970-90 to bring out the spread of gold loan in the co-operative sector in Kerala and Tamil Nadu. In both the states the importance of gold loans has steadily increased over the years. In the 1980's, over one fourth of the outstanding advance was against the security of gold in both the

states. In the 1970's, it was below one percent in Kerala and about one percent in Tamil Nadu. The annual percentage change of outstanding credit and Gold loans, in both the states over the

Table 2.10 : Classification of Loans, Advances Outstanding at the end of June Against Gold and Silver, Overdue in PACCS of Kerala (Ker:) and Tamil Nadu (T.N).

Years	Outstanding Credits					Annual Growth rates of			
	Total credit (crores)		% of Gold & Silver		Over due as % of Credit	credit		Gold loans	
	Ker:	T.N	Ker:	T.N	Ker:	Ker:	T.N	Ker:	T.N
1970	30	57	9.4	1.3	24	-	-	-	-
1971	NA	NA	NA	NA	NA	-	-	-	-
1972	43	72	8.7	0.7	30	-	-	-	-
1973	46	83	9	0.9	35	7.4	15.6	10.7	37.4
1974	NA	NA	NA	NA	NA	-	-	-	-
1975	53	59	16.5	1.2	NA	-	-	-	-
1976	NA	NA	NA	NA	NA	-	-	-	-
1977	NA	NA	NA	NA	NA	-	-	-	-
1978	86	207	16.5	6.2	29	-	-	-	-
1979	130	222	20.7	8.7	20	51.5	7.1	90.5	50.3
1980	171	231	23.3	10.6	19.6	31.7	4	48.3	26.6
1981	220	200	24.9	13.2	20.8	28.3	-13	37.1	8.2
1982	242	258	21.6	12.2	21.6	10.3	29	-4.4	19.1
1983	277	228	24.3	17.7	21.5	14.1	-12	28.4	28.5
1984	342	296	25	19.7	20.2	23.6	29.8	27.1	44.1
1985	415	316	20	27.5	21.2	21.4	6.5	-2.9	60
1986	514	360	21.6	32	20.4	23.8	14	33.7	23.6
1987	612	367	29.7	33	17.8	19	2.1	63.6	5.3
1988	721	511	29.4	28	18.5	17.8	39.1	16.6	18
1989	814	607	30.6	29	20.1	13	18.8	17.6	23
1990	932	772	26.5	33	26.2	14.4	27.1	-0.9	44.6

Source: RBI, NABARD. Statistical statements for Co-operative Movements in India. Part-1 Credit Societies.(1970-90) RBI, NABARD.

period, shows that growth rate of gold loan has always been above the growth of outstanding credit, except for few years. Thus, co-operative societies in both the states have shown an increasing tendency towards advancing loans against the security of gold. The growing importance of gold loan in the portfolio of co-

operatives has attracted some studies. A study on supply and utilization of long term institutional credit, provides the purpose wise disbursement of short-term credit of Panancherry service

TABLE 2.11 : Purpose Wise Loan of Panancherry Service Co-operative Bank (Kerala) from 1976-77 to 1985-86.

Years	Short term Agriculture loans(%)	IRDP %	Housing %	Ordinary %	Deposit %	Gold %	Total Rs;lakhs
1976-7	85	1.51	-	4.35	7.85	1.95	8.92
1977-8	64.2	6.14	-	0.33	5.09	24.3	15.2
1978-9	43.1	7.63	0.88	3.21	6.24	38.9	19.3
1979-0	34.2	5.23	0.19	0.23	6.72	53.4	30.6
1980-1	35.2	0.02	-	0.01	8.36	56.4	37.4
1981-2	50.2	0.11	-	1.85	4.62	43.2	41.4
1982-3	42	-	-	3.42	5.92	48.7	38.2
1983-3	23.7	20.3	-	1.19	2.05	52.8	47.1
1984-4	33.7	0.01	-	-	2.22	64.1	40.7
1985-5	38.9	-	-	-	2.83	58.3	46.4

Source: Paranjothi.T.(1987) p.106

Co-operative bank (PSCB) in Trichur district of Kerala over 1976-77 to 1985-86 (Paranjothi,1987). It revealed that though the short-term loan constituted 85 percent of the total loan amount in 1976-77, there was a sharp decline in the subsequent years (see Table 2.11). There has been a sharp increase in the share of gold loan from 1.97 percent in 1976-77 to 58.31 percent in 1985-86. This means that the bank has deviated from its original objective of giving credit to agricultural purpose (see Table 2.11, column 2). The reason for this is two fold. Firstly, the finance available to the bank is based on the recoveries made by the bank and secondly, the bank is keen on giving gold loan since there is no recovery problem. Further, the rate of interest they get on this is much higher (18 percent).

This micro level study on the nature of short term credit disbursed by PSCB showed that the relative importance of gold loan has increased. In the absence of state level data of similar nature,it cannot conclusively be stated that the relationship between recoveries and gold loans is strong. However, most of the successful PACCS in Kerala seem to have been following similar pattern of lending.

In sum, the PACCS in Kerala and Tamil Nadu have been showing a bias towards gold loans in their lending. By this they could get over problems such as poor recovery, recycling of existing funds, earning profit, faced by PACCS in other states. Keeping with the limitation of aggregate data relating to security wise distribution of credit by institutional agencies, it may be stated that the above analysis gives a broad picture of growth and spread of gold loans.

2.3. Limitation of AIDIS data.

A closer look at the AIDIS reveals that there are a few problems of comparability and reliability of the estimates. In this section, a brief look at the limitation of AIDIS estimates is attempted. The problem of underestimation, reliability and comparability of AIDIS data has been well documented by many studies like Narayana (1989), Gotoskar(1988), P.K Tandon (1988) Frrukh(1988), Bell(1990)[5].

[5] .According to **Narayana (1989)** the reliability and comparability problem in the various estimates came out from the sharp shift in the selection of sample households. That is, a definite shift in the sampling strategy from smaller number of villages with larger number of households per village to larger

According to AIDIS 1981-82, in Kerala about 28.5 percent of the rural households were indebted. The incidence of debt was 9.64 percent for commercial banks and 13.23 percent for co-operative banks, which implies that nearly 23 percent of incidence of debt was accounted for by the formal sector. In Kerala, gold loans accounted for about 25 percent of the total outstanding credit in 1981 of the formal sector(co-operative movement in India 1981-82 (NABARD). Therefore, 5.75 percent of rural households reporting

number of villages with smaller number of households per village. Therefore sample size showed only a marginal increase between 1961-62 and 1971-72 and a marginal decrease between 1971-72 and 1981-82. Because of this shift in the sampling strategy, It is able to generate reliable estimate of one component of the AIDIS estimates, the amount per reporting households. But, the estimate of incidence (proportion of reporting households) seems to be less reliable.

According to **Gothoskar(1988)** compared to the supply side estimate the incidence of rural indebtedness and the quantum of debt as estimated from the 1981 survey appears to be grossly underestimated. However, the cash debt outstanding per (reporting) borrowing households is close to the official figure of outstanding credit per account with suitable adjustment.

Tandon (1988) shows that the main reason for all underestimation of total rural credit is on the account of the underestimation of the total number of borrowing households. Also he raised the doubt along with other studies, reliability of information on outstanding debt from non-institutional sources. According to him, survey data grossly underestimates the actual indebtedness of the poor section relying mainly on non-institutional sources for their supply of credit .

Another study by **Iqbal Frrukh (1988)** based on the NCAER (National council of Applied Economics) surveys on Indian farm households between the period 1968 and 1978, gives the interesting results that small farmers constituted the single most important outlet for the private money lender finance, constituting 70 percent of the total credit disbursed by the money lender.

According to **Clive Bell (1990)** a detailed comparison of three major surveys of the Indian rural credit markets revealed a steady growth of lending by institutional agencies and greater erosion of the money lenders position. But he argued on the basis of various independent survey of various areas of India, official reports of the money lender's impeding demise are much exaggerated. The money lender is still a major source of loans.

debt come under gold loan provided by the formal sector. The proportion of households reporting debt against gold from all sources comes to around 6.5 percent. This implies that informal sector contribution in jewel loan market is marginal.

Similarly, the average amount of debt outstanding per household against gold is Rs:119. Going by the information about the co-operative credit sector, 25 percent of their lending is against gold. Applying this ratio on the amount outstanding against all formal agencies,the figure is far above the demand side estimate of Rs:119 shown by the AIDIS. Therefore, AIDIS estimates are not entirely reliable or comparable and they are particularly poor in bringing out the magnitude of informal jewel loan market. The only alternative is to use data from primary surveys. This is the task taken up in the next chapter.

CHAPTER 3

CHARACTERISTICS OF THE INFORMAL JEWEL LOANS IN KERALA

In the previous chapter, it was noted that there were major data gaps on certain crucial aspects of informal credit markets which could only be filled by primary surveys. As part of this, in 1987, Centre for Development Studies had conducted a survey for the Asian Development Bank. The survey was limited to a few selected villages from Kerala and Tamil Nadu. These villages were selected on the basis of various parameters which have a bearing on the informal credit market[1]. The selected areas from Kerala are (1) **Thirunavaya**, a village in the district of Malappuram, located 15 Km from Tirur, the taluk head quarters. (2) **Talikulam** located about 23 Km from Trichur, the district head quarters. (3) **Anikadu** in Kottayam taluk, located around 35 Km from the Head quarters of Kottayam district and (4) **Ezhukone**, a village located 28 Km away from Quilon district's head quarters. This chapter uses the information from this survey to provide a picture of the informal credit market.

This chapter is organised into four sections including a conclusion. **Section-1**, presents the overall structure of the credit market across the villages and shows to what extent the findings of the village level survey are compatible with AIDIS data. **Section-2**, provides an analysis of the jewel loan market in

[1] For detailed discussion on the sampling design, see report on the informal rural credit market in India. Center for development studies (1988)

the selected villages. Section-3, explains the various characteristics of informal jewel loans in Kerala. Section-4 is the conclusion.

3.1. The Structure of Village Credit Market.

The structure of the credit markets in the selected villages seem to broadly conform to the pattern observed in AIDIS data. In all the villages except Thirunavaya, the share of informal credit agencies in the proportion of reporting households, the total outstanding debt and total borrowing is significantly lower than that of the formal credit institutions (See Tables 3.1 and 3.2).

Table 3.1 : Incidence of Debt Across Villages During 1986-87

Village		Formal Credit Agencies			Informal Credit Agencies			Total	
	Number	Number	Debt per		Number	Debt per		Number	Debt per
	of S.H	of R.H	R.H Rs:	S.H Rs:	R.H	R.H Rs:	S.H Rs:	R.H	S.H Rs:
Thiru-navaya	68	18 (26)	2888	751 (52)	25 (36)	1958	705 (48)	32 (47)	1456 (100)
Thalikulam	83	19 (23)	5344	1223 (67)	15 (18)	3356	606 (33)	32 (39)	1829 (100)
Anikadu	77	33 (43)	4293	1839 (94)	6 (8)	1388	106 (6)	35 (45)	1945 (100)
Ezhukone	95	22 (23)	3693	855 (79)	11 (12)	1904	220 (21)	32 (34)	1075 (100)

Notes: R.H refers Reporting Households,
S.H refers Sample Households,
Figures in the brackets denote percentages.

Source: Centre for Development Studies, (1988).

The proportion of reporting households (incidence of debt), borrowing per reporting household and sample household during 1986-

87 from the formal credit institutions are significantly higher than that from the informal credit institutions in all the villages except Thirunavaya. It was reported that the incidence of debt in Thirunavaya village against formal credit agencies was 26 percent which is lower than the incidence of debt against informal credit agencies (36%). However, the amount borrowed per sample household in this village showed that the share of both are more or less the same. That is, 52 percent and 48 percent respectively.

In Thalikulam village, the incidence of debt against the formal sector was marginally higher than (23%) that against the informal agencies (18%). But the amount borrowed per sample household showed a wide difference between the sectors. During 1986-87, nearly 70 percent of the debt were contributed by the formal agencies and the informal agencies accounted for only 30 percent.

The incidence of debt against the formal sector in Anikadu village was significantly higher than (43 %) that the informal agencies (8%). The share of formal sector in the total debt during 1986-87 (94 %) was also visibly higher than the informal sector (6%). In Ezhukone village, the incidence of debt against the formal sector and informal sector were 23 percent and 12 percent respectively. But the amount borrowed per sample household showed 79 percent of total debt per sample households were obtained from the formal sector and only 21 percent from the informal sector.

Table 3.1 shows the complete domination of formal sector in Anikadu village and informal sector in Thirunanavaya village. In

other two villages, Both sectors showed their importance in credit market. In short, it has to be noted that the incidence of debt in none of the villages is low, but the amount borrowed per sample household is low, especially from the informal sector. It has also to be noted that the incidence of debt in all the villages is higher than that of AIDIS estimate of 33 percent for the state as a whole.

Table 3.2 : Outstanding Debts, Loans Across Villages, April,1987

Village		Formal Credit Agencies			Informal Agencies			Total	
	Number of S.H	Number of R.H	Debt per R.H Rs:	S.H Rs:	Number of R.H	Debt per R.H Rs:	S.H Rs:	Number of S.H	Debt per S.H Rs:
Thiruna-vaya	68	24 (35)	2900	1023 (41)	28 (41)	3531	1448 (59)	35 (52)	2471 (100)
Thaliku-lam	83	46 (55	4329	2395 (72)	22 (27)	3441	912 (28)	58 (59)	3307 (100)
Anikadu	77	39 (51)	6626	3353 (80)	18 (23)	3673	860 (20)	57 (69)	4216 (100)
Ezhukone	95	43 (45)	4069	1829 (71)	20 (21)	3566	752 (29)	53 (52)	2581 (100)

Source: Same as in Table 3.1

Table 3.2 shows that in all the villages, the incidence of debt against informal agencies is not marginal. It varies from 41 percent in Thirunavaya to 21 percent in Ezhukone. Also the debt outstanding per sample household against informal agencies varies from 59 percent of the total debt (Rs:) in Thirunavya to 21 percent in Anikadu. According to AIDIS estimates, the incidence of debt and the average amount of cash due outstanding per rural household in Kerala in 1981-82 were 28 percent and Rs:951 respectively. The data from four villages shows that the incidence of debt has been much higher. It varied from 52 to 69 percent. This further underlines the general view that the AIDIS underestimate the

incidence of debt. Nevertheless, the AIDIS estimate regarding cash dues outstanding(%) against formal sector in Kerala was 78.7 percent (see Table 2.3) which is close to the averages in all the villages except in Thirunavaya.

Table 3.3 : Percentage of Borrowing Classified According to Credit Agencies.

VILLAGE	Agriculture MoneyLender %	Professional Money Lender %	Traders %	Relatives & Friends %
Thirunavaya	0.11	8.23	12.7	78.9
Thalikulam	-	30.3	-	69.7
Anikadu	19.3	16.7	0.6	63.4
Ezhukone	8.8	22.8	-	68.4
AIDIS(Kerala See Tab:2.2	0.1	25.3		61

Source: Same as in Table 3.1.

The distribution of borrowing according to informal credit agencies conform to the same pattern as in the AIDIS data. Among the informal lenders, relatives and friends play a dominant role in all the villages (see Table 3.3). Their share in the total borrowing ranged from around 63 percent in Anikadu to 79 percent in Thirunavaya. The professional money lender came next in order of importance. He is quite significant in all the villages except Thirunavaya and most prominent in Talikulam. His share in the total amount of loan from the informal sector was found to vary in the range of 8.2 percent in Thirunavaya to 30 percent in Thalikulam. In Thirunavya also, PMLs are present but the sample selected did not reflect that reality. The role of agriculturist money lenders and traders are minimal in all the villages except

Anikadu. In sum, the reality depicted by the village surveys regarding the distribution of loan outstanding by agencies is in conformity with AIDIS data.

The number of outstanding loans and the number of loans from the informal credit agencies classified according to security reveal an interesting pattern (see Table 3.4). From the survey results, it is obvious that the debt against personal security outnumber other forms of security in Thirunavaya, Anikadu and Ezhukone. In Thirunavaya 52 of the 60 borrowing (87 %) came under personal security. Therefore, the relative/friends share in the informal credit market of Thirunavaya is significant. In other villages also, the share of relatives and friends is very strong in the sense that the share of outstanding informal loans against personal security is significant. That is, its share in Thalikulam 31 percent, in Anikadu 47 percent and in Ezhukone 35 percent. The distribution of loans outstanding by security also shows that loan against gold is an important security in all the villages, especially in Thalikulam (32 %) and in Anikadu (30 %). Its share in the total number of loans in Thalikulam and Anikadu are 32 percent and 30 percent respectively.

But in the informal sector, 23 out of the 39 informal borrowing (59%) came under security of gold in Thalikulam and in Ezhukone, its share was 30 percent. Therefore, in Thalikulam and Ezhukone, gold is the most preferred asset for informal lenders. This can be attributed to the prominence of professional money lenders (PMLs) in these villages (see Table 3.3). The other interesting fact is that the share of loans against land and

Table 3.4 :Number of Outstanding Loans and Number of Loans from Informal Agencies Classified According to Security

Village	% distribution of number of loans outstanding			
	Personal sec:	Gold	Land&Buld:	Others
Thirunavaya	94.7	5.3	0	0
Thalikulam	46.2	32.3	17	4.6
Anikadu	36.3	30.4	27.5	5.8
Ezhukone	27	12.7	47.6	12.7
Security	Number of loans from informal agencies			
	Thirunavaya	Thalikulam	Anikadu	Ezhukone
Personal Security	52 (87)	12 (32)	17 (47)	15 (35)
Gold	5 (8)	23 (60)	5 (14)	13 (30)
Land/ Buildings	3 (5)	3 (8)	13 (36)	12 (28)
Others	-	-	1 (3)	3 (7)
Total	60 (100)	39 (100)	36 (100)	43 (100)

Source:same as in Table 3.1.

building are noteworthy in both sectors of villages like Anikadu and Ezhukone. This cannot be attributed to any credit agencies. Instead, their prominence can be explained in terms of the duration loans.

It has to be observed from Table 3.4, in Ezhukone and in Anikadu, the land and building are one of the most preferred asset The percentage distribution of loans outstanding by security shows that loan against land and building are an important security in Anikadu and Ezhukone. Its share are 28 percent and 48 percent respectively. In the informal sector, its share are 28 percent (10·

Table 3.5 : Number of Borrowing from Informal Agencies According to Duration.

Duration (month)	Thirunavaya	Thalikulam	Anikadu	Ezhukone
1----6	40	15	9	5
6----12	15	24	12	17
12---24	2	-	5	10
24---36	-	-	-	-
above 36	1	2	10	11

Source: same as in Table 3.1

out of the 36 informal borrowing) and 26 percent (11 out of the 43 informal borrowing) respectively. The relatively high proportion of the loan against Land and Building as security in these two villages is because of the prominence of long term loans (see Table 3.5).

It was reported that Anikadu has highly commercialized agriculture demanding heavy investment with comparatively longer gestation period (Centre for Development Studies, 1988). Similarly in Ezhukone village, there are few industrial establishment which provide a favorable environment for the expansion of non-farm investment activities in the village. These favorable factors for industrialization and construction were not found in the other villages. In majority of the selected villages, the large proportion of loans outstanding and of borrowing are of less than one year duration (see Table 3.5). But it has to be noted that in Anikadu and Ezhukone, loans with duration of more than one year were very significant. It is observed that around 35 percent of the total informal borrowing of these villages are for the longer duration, five years and above.

Let us conclude this section. The expansion of the institutional agencies has undermined the role of the informal sector in all the villages except Thirunavaya. Most of the informal lenders have suffered a set back, especially, the presence of agriculturist money lender and traders have been greatly reduced. The role of relatives and friends is very important in the credit market of all the villages. All these finding are compatible with the AIDIS data. The most interesting fact, however, is that, in those village where PML had been dominating, gold (jewel) was the most preferred asset. In the next section we shall discuss the jewel loans in both formal and informal sectors in order to understand their structure, organisation and operation.

3.2. The Structure, organization and operation of the jewel loan market.

This section attempts to look at the prominence of the jewel loans in the credit market of all the villages and also tries to explain how it differs from the formal jewel loans in terms of the rate of interest, loan amount...etc. The section seeks to present the structure, organisation and operational procedure of jewel loans in the selected villages.

In Thirunavaya village, branches of two scheduled commercial banks, South Malabar Grameena Bank (SMGB) and South Indian Bank-- are functioning besides one Service Co-operative Society and an office of the Urban Co-operative Bank. Out of 68 sample

Table 3.6: Number of Borrowing from Formal and Informal Sector Against Gold in Each Village.

Village		Formal Credit Agencies			Informal Credit Agencies			
	Number of S.H	Number of R.H	Number of R.H Jewel	Number of Borrowing Loans	Number of R.H	Number of R.H Jewel	Number of Borrowing Loans	Total Borrowing
Thiruna-vaya	68	24	18	21	28	4	5	60
Thalikulam	83	46	18	18	22	20	23	39
Anikadu	77	39	37	54	18	5	5	36
Ezhukone	95	43	10	12	20	10	13	43

Source: Estimated from the primary survey, Centre for Development Studies, 1988

households, 24 have reported credit transaction with the formal agencies (27 percent). Out of them, 18 have reported having gold loans with formal agencies and the number of borrowing against jewels were 21 (see Table 3:6). This implies that most of the lending (75 percent) by the formal agencies are against jewels in this village (see Table 3:7).

Consequently, the share of informal jewel loans are marginal. The share of households reporting the informal jewel loans is 5.8 percent of the sample households which is only 14.3 percent of the households who borrowed from informal agencies. The percentage of outstanding amount borrowed against jewels in the total formal credit (79.7%), the informal sector is (13.7%) and the share of each sector's debt against jewels in the total advance are 32 % and

8 % respectively. That is, all shares follow the same pattern of the incidence of debt against jewels. It was estimated that 40

Table 3.7 : Incidence of Debt Against Jewels Across the Villages. April 1987

Share(%) of the households reporting loans against Jewels					Share of Debt against Jewels in (Rs:000)					
Village	Formal (F) sector Number of		Informal (I) sector Number of		F	I	Total jewel	Total Debt loan	The Formal sector Advance	The Informa sector Advance
	S.H	R.H	S.H	R.H	1	2	1+2			
Thirunavaya	(26.5)	(75)	(5.8)	(14.3)	55.5 (32)	13 (8)	68.5 (40)	168.5 (100)	(79.7)	(13.2)
Thalikulam	(21.7)	(39)	(26)	(91)	90 (33)	36.7 (13)	126.7 (46)	274.5 (100)	(45.3)	(48.5)
Anikadu	(48.1)	(94)	(4)	(16.6)	57.4 (18)	3.9 (1)	61.3 (19)	324.4 (100)	(22.2)	(5.8)
Ezhukone	(10.5)	(23)	(10.5)	(50)	20.5 (8)	19.7 (8)	40.2 (16)	245 (100)	(11.8)	(27.6)

* Figures in brackets denote the percentages.
Source: Same as in Table 3.6

percent of the outstanding debt was contributed by the jewel loans and formal jewels are very prominent in the credit market of Thirunavaya village.

In Thalikulam village, besides the state Bank of Travancore, the branches of four scheduled commercial banks are functioning. Out of 83 sample households, 46 have credit transaction with the formal agencies. Out of these, 18 have borrowed against the security of gold. That is, 22 percent of sample households and 39 percent of reporting households raised funds from formal sector against the security of gold. In the informal sector, their shares

are 26 and 91 percent respectively. Also, out of total number of informal borrowing (39), 23 borrowing were against jewels. The share of the amount borrowed against jewels from both sectors were more or less equal, since the advance against jewels came around 45 percent of the formal advance and 48 percent of the informal advance. It is observed that nearly 50 percent of outstanding debt in this village was raised by the pledge of gold. The incidence of debt against jewels from the informal sector at 24 percent is higher than that from the formal sector at 21 percent, but, the share of formal sector advance against jewels in the total debt is at 33 percent which is higher than the informal sector at 13 percent. This means that the informal jewel loans are of smaller amount per account. The reasons for the prominence of informal jewel loans in Thalikulam village are that gold loan transactions of commercial banks were confined to one or two days of the week and the credit needs of the villagers, especially the comparatively weaker segments, like fishermen, were not adequately met (Centre for development Studies, 1988). Naturally, the credit needs of such disadvantaged group are met by the informal lenders.

Although, Anikadu has offices of some commercial banks, Anikadu Regional Farmers Co-operative Society is the most important formal credit institution providing both short term and long term loans for agricultural purposes. It was reported that 39 out of the 77 sample households had jewel loan transactions with the formal agencies. Out of these 39 reporting households, 37 have

borrowed from institutional sources against the security of gold. In other words, 48 percent of the sample households and 94 percent of the reporting households have obtained loans against jewels from the informal sector. The dominance of institutional agencies in this village squeezed the scope of informal agencies and 5 households reported borrowing of jewel loans from PML. Therefore, their shares are 4 percent and 16.6 percent respectively. The amount borrowed against jewels in outstanding debt also showed the same pattern of the dominance of formal jewel loans. That is, 18 percent of total advance and 22 percent of formal sector advance are against jewels. But the share of informal jewel loans are relatively low (1 percent of total advance and 6 percent of the informal sector advance). Therefore, the informal jewel loans are marginal in this village and they are not widespread compared with Thirunavaya and Thalikulam. Nevertheless, 20 percent of the outstanding debt were raised by the security of gold.

Ezhukone has an office of the Indian Overseas Bank and a service Co-operative Bank. Out of the 95 sample households, 10.5 percent have reported credit transactions with the formal sector against jewels and nearly 23 percent of the reporting households in the formal sector. In the informal sector, the percentage of indebted sample households against jewels was the same as that against formal sector (10.5%). But it was reported that 50 percent of the reporting households had jewel loans. This means that informal jewel loans are relatively widespread in this village. It

is also substantiated by the amount borrowed against jewels from informal advance (28 %) as against relatively low share of formal sector advance (12 %). However, it was observed that share of outstanding debt against jewels are relatively low in this village (16 %). and both sector's share in the total debt against jewels are same (8 %).

Table 3.8 : Rate of Interest Loan Amount Against Jewels in Formal and Informal Sectors--**THIRUNAVAYA**

Formal Sector	Year of Contract	Rate of Interest (%)	Loan amt per gram (Rs:) *	Quantity Gold (gm)	L/P **
South Malabar	3/1985	17.5	100	8	0.45
Grammena Bank	2/1986	13	75	32	0.34
(SMGB)	7/1986	16	120	32	0.54
	10/1986	13	80	16	0.36
	3/1987	16	95	24	0.33
South Indian	11/1985	20	98	10	0.46
Bank (SIB)	6/1986	19.5	94	16	0.42
	4/1987	19	102	32	0.35
Co-operative	2/1987	17	95	28	0.33
Informal Sector					
Non-PML	1/1986	0	250	4	1.13
	5/1986	0	200	5	0.91
	3/1987	0	225	4	0.78
PML	9/1986	35	121	48	0.55
	2/1987	35	125	40	0.43

Notes- * The loan amount per gram of each contract is calculated on the basis of the amount advanced (L) and the quantity of gold pledged.

** L/P of each contract is computed on the basis of the amount advanced (principle) by PML and the market price of the quantity of gold pledged at the time of opening each contract.

Source: Same as in Table 3.6

Turning now to the characteristics of the jewel loans, it may be observed that in Thirunavaya village most of the informal borrowing were from relatives and friends and they were given as interest free loans on personal security[2].

However, the PMLs advance loans only on the security of gold. The presence of informal jewel loans are marginal in this village because of the prominence of formal agencies (SMGB) in the jewel loan market. The rate of interest charged by the PML against jewel loans was 35 percent. In the formal sector, the rate of interest varies across agencies and over the years, according to changes in the credit policies of the banks (see Table 3.8). Regarding loan amounts it is clear from the table that the formal sector gave only low loan amount per gram of gold compared to the informal lenders (PMLs)[3].

The PML gave loan amount raging between 50-70 of gold price of the respective years. It may be noted that the loan amount

[2] It was reported that kinship, religious belief (Muslims constitute the majority of the population) proscribes paying and receiving interest and inflow of remittance from the Gulf are the underlying factors.

[3] The loan amount per gram is computed on the basis of amount advanced and the quantity of gold pledged. We do not know what is the amount demanded. We do not know the number of pieces of jewels pledged. Further there is the problem of indivisibility of the jewels.

advanced per gram of gold was found to be below 50 percent of the gold price in most cases. But the loan amount in the informal sector varies across the client because it depends not only on the gold price but also the personal knowledge about the borrower and the demand for credit. It was estimated that average L/P (the loan amount as a percentage of market price of gold in the year of contract) for the formal sector were 0.39 and 0.5 for the PML.

On the whole, the loan amounts (L) per gram of gold have stagnated over the years in the formal sector and loan amounts of PML have been sensitive to the market price of gold. However, there are some non-professional money lenders (neighbour), who were lending large loan amounts-exceeding the current price of gold at times- at zero rate of interest (see Table 3.8).

Table 3.9 : Rate of Interest, Loan Amount Against Jewels in Formal and Informal sector--- **THALIKULAM**

Formal Sector	Year of Contract	Rate of Interest (%)	Loan amt: per gram (Rs)	Quantity Gold (gms)	L/P
Canara Bank	8/1983	14	104	144	0.57
	7/1984	12	83	24	0.42
	1/1986	14	97	104	0.44
	3/1987	14	106	32	0.37
Co-operative	12/1985	17	105	96	0.50
	10/1986	18	106	144	0.48
	4/1987	17	125	32	0.43
Catholic Syr-ian Bank	5/1985	18	95	50	0.48
	1/1986	18	77	13	0.34
	4/1987	17	100	6	0.34

Source: Same as in Table 3.6

In Thalikulam village (see Table 3.9), the rate of interest in the formal jewel loan market varies from year to year. In Canara Bank, it varied from 12 percent to 14 percent and in the Co-operative Bank and Catholic Syrian Bank, it varied from 17 to 18 percent. But, in the informal sector also there are source wise variation in the rate of interest. That is, PML2 and PML4 charged 24 percent and PML1 and PML3 charged 30 percent. It was reported

Table 3.9 contd:

Informal Sector (PML)					
PML1	7/1985	30	107	112	0.51
	11/1985	30	113	12	0.53
	2/1986	30	50	3	0.23
	3/1986	30	125	2	0.56
	2/1986	30	44	9	0.20
	1/1987	30	200	10	0.69
	1/1987	30	150	20	0.52
	2/1987	30	112	12	0.39
PML2	2/1985	24	50	7	0.24
	3/1986	24	200	4	0.90
	1/1987	24	187	16	0.65
	1/1987	24	66	3	0.23
PML3	9/1985	30	125	12	0.59
	7/1986	30	166	6	0.75
	4/1986	30	53	4	0.28
	12/1986	30	38	6	0.17
	3/1986	30	125	12	0.56
	1/1987	30	143	7	0.50
PML4	8/1986	24	166	24	0.75
	9/1986	24	98	24	0.44
Others	2/1986	30	125	4	0.57
	4/1986	36	62.5	4	0.28
	1/1987	30	90	5	0.31
	2/1987	30	125	16	0.43

Source: Same as in Table 3.6

that some PML charged 36 percent. However, it may be noted that in the informal sector the rate of interest has not shown any variation (constant) over the years. Regarding the loan amount against jewels, in the informal sector, it varied between 50 to 60 percent of the market price of gold. In the formal sector, the loan amount was less than 40 percent of the price of gold. In short, in this village also, the loan amount against jewels are generally influenced by the current price of gold in the informal sector but it has stagnated in the formal sector.

Table 3.10 Rate of Interest, Loan Amount Against Jewels in Formal and Informal Sectors-- **ANIKADU**

Formal Sector	Year of Contract	Rate of Interest	Loan amt: per gram	Quantity Gold	L/P
Anikadu Farmer's Co-op: Society	3/1981	14	80	3	0.48
	1/1987	17	115	4	0.39
Informal Sector	1/1983	36	NA	NA	-
	5/1985	36	NA	NA	-
	6/1986	36	NA	NA	-
	3/1987	36	NA	NA	-

Source: Same as in Table 3.6

In Anikadu, it could be seen that the rate of interest did not vary over the years in the informal sector. The loan amount advanced per gram of gold could not be derived from the data, since the quantity of gold was not reported. But it is observed that formal sector loan amounts are less than 50 percent of gold price and the rate of interest has increased from 14 percent in 1981 to 17 percent in 1987 (see Table 3.10).

It was reported that PML in Ezhukone charges a differential rate of interest across the clients (See Table 3.11). That is, he advanced loans at low rate of interest to the poor (18 percent), to cultivators at 30 percent he charged high rate of interest of 36 percent from businessmen and contractors. If a lender wants to charge two different interest rate he will have to couch it in some universalizable principle (Basu 1989 p: 154). The above pattern of informal jewel loans is different from the nature of informal jewel loans of uniform rate of interest to all clients, observed from the other villages. However, it is observed that this pattern of lending has not changed over the years. That is, this particular PML had been charging same rate of interest (18%) from

Table 3.11 : Rate of Interest, Loan Amount Against Jewels in Formal and Informal Sectors-- **EZHUKONE**

Formal Sector	Year of Contract	Rate of Interest	Loan amt: per gram	Quantity Gold	L/P
Indian Overseas Bank	8/1984	11.5	100	20	0.51
	4/1986	12	95	14	0.43
	7/1987	12.5	120	24	0.41
Co-operative	3/1986	17	90	8	0.43
	3/1986	13	85	20	0.38
	3/1986	8	80	16	0.36
Informal sector (Same PML)	10/1981	30	150	20	0.88
	4/1985	30	187	16	0.89
	5/1985	36	180	40	0.85
	11/1985	30	114	7	0.54
	6/1986	30	125	24	0.57
	12/1986	18	83	8	0.37
	7/1986	30	125	4	0.57
	1/1987	30	171	7	0.60
	4/1987	30	110	5	0.38

Source: Same as in Table 3.6

the poor, 30 percent from cultivators and 36 percent from the businessmen and contractors. Therefore, we can say, the rate of interest is fixed over the period even though it shows some variation across the clients.

In the formal sector, it was observed that the rate of interest on jewel loans showed some variation across the account along with the inter-temporal variation. It can also be attributed by the purpose-wise variation of loans. That is, if the loan is for production purpose, say agriculture loan, the rate of interest would be at lower level (8%). If it is for consumption purpose, it would be 18 percent. It was noticed in the last chapter, most of the short term loans of formal lending institutions in Kerala, under various schemes, are disbursed against the security of jewels so that they can get out of the loan recovery problem. Therefore, the differential rate of interest were observed in the organised jewel loan market which is an outcome of inter-temporal as well as purpose-wise variations of interest rate.

In this village also, the loan amount of informal sector is the varying factor. It was estimated that average loan amount per gram of gold come around 60 percent of gold price. In the formal sector, the loan amount per unit of gold stagnated which have reflected in the low average L/P value of 0.42 and rate of interest varied over the years according to the policy changes of banks.

In sum, the finding based on the secondary data that the dominant business of the formal credit agencies to lend against gold in the rural areas of Kerala gets confirmed by the survey data. Such loans carry a rate of interest ranging between 8 percent to 18 percent, which was decided by the RBI from time to time, is the net outcome of purpose-wise and inter-temporal variations. The loan amount advanced per gram of gold does not respond very well to the market price of gold. In most case, it is less than 50 percent of the market price of gold. It was also observed that Professional Money Lenders are present in all the villages surveyed. Their main business is to lend against the security of gold and the amount advanced responded to the market price of gold. The rate of interest charged by them was higher and varied between 18 percent to 36 percent across the villages and PMLs. But the rate of interest did not show any variation over the years and across the clients.

3.3. The characteristics of the informal jewel loans

This section is devoted to the description of the various characteristics of the informal jewel loans like segmentation, rate of interest, defaults, duration, purpose...etc, in order to show how it differs from other securitised lending.

In the informal credit market, normally various types of assets are accepted as collateral by lenders. However, all forms of collateral are not equally acceptable to lenders. According to

Table 3.12 : Average Nominal Rate of Interest by Type of Collateral in the Informal Sector.

Security	Anikadu	Ezhukone	Thirunavaya	Talikulam
Gold	36	30	35	28
Land & Buildings	40	40	40	36
Personal Security	62	60	124	43
Others	46	40	-	-

Source;same as in Table 3.1

M. Swaminathan (1991), there exists a systematic relationship between the type of collateral and interest rate on credit contracts across villages that differ in their socio-economic condition. Also her study showed that a wide range of assets are accepted by informal lenders.

But in the Kerala villages, gold, land/buildings and personal security (no security) are the major forms of collateral in both formal and informal sector. The rate of interest charged by the lenders shows some variation across the villages. The average nominal rate of interest prevailing in the informal jewel loan market rages from 28 percent to 36 percent. For land/building, it varies between 36 to 40 percent and for personal security, it varies from 43 to 124 percent (see Table 3.12). In short, we can say that the gold is the most preferred asset in all the villages.

According to Bhaduri (1977, 1983) highly personalized character of the informal credit market is reflected in the lenders ability to place an arbitrary valuation, which result in the undervaluation of collateral. This is the reason for the formation of usurious rate of interest in the informal credit market. He identifies two sources of undervaluation of collateral by lenders. One is the general marketability of the collateral which can provide monopolistic advantage to the lender in a restricted market. The second one is based on the divergence between the personal (psychological) valuation of collateral by a borrower and a lender. In jewel loan market, high marketability of jewels restricts the lenders ability to undervalue jewels held by the borrower. Also, there is no significant difference in the personal valuation of jewels between the borrower and the lender. However, it is reported that lenders valuation of jewels is around 10 percent of the current market price of gold. When the resale value of jewels is taken into account lender's valuation is fairly close to the secondary market value. Therefore, there is no implicit rate of interest in jewel loan markets by undervaluation as in the case of other credit markets.

Swaminathan's study (1991) on the informal credit market showed that the segmentation is derived from two factors. One is the type of collateral offered and other is the purpose of the loan. But these two reasons are not valid in explaining the

Table 3.13 : Allocation of Jewel Loans by Purpose of Borrowing in Formal (F) and Informal (I) Sectors

PURPOSE OF BORROWING	Thirunavaya		Thalikulam		Anikadu		Ezhukone	
	F	I	F	I	F	I	F	I
Production	9	3	6	4	22	2	6	6
	(43)	(60)	(33)	(18)	(41)	(34)	(50)	(50)
Consumption	9	2	10	13	20	3	4	6
	(43)	(40)	(55)	(56)	(37)	(66)	(33)	(43)
Unspecified	3	-	2	6	12	-	2	1
	(14)	-	(12)	(26)	(22)	-	(17)	(7)
Total	21	5	18	23	54	5	12	13
	(100)	(100)	(100)	(100)	(100)	(100	(100)	(100)

Source: Same as in Table 3.6

segmentation of credit market in Kerala. It is seen from the Table 3.13 that both the sectors accept the same collateral and lend for both productive and consumption purposes. In short, the jewel loan market is different from other collateral loan markets and reasons for segmentation are following. (1) Each area has its own banking mechanism and preference for a particular collateral. Therefore, segmentation can be possible on the basis of type of collateral preferred by the lenders (For example segment of gold loans). Even within the segment of gold loan, fragmentation, like formal and informal is possible because of their operational difference. Further fragmentation is possible even within one locality because individual preference of lenders and borrowers. In short, segment of collateral (gold) loan, operation difference and individual preference are the sources of segmentation in the credit market.

It is observed from Table 3.14, that default cases are generally negligible in the jewel loan market. It was reported

that in the informal jewel loan market, only two cases were declared as default out of 46 contracts (that is default less than 5%). In the formal sector, two defaults were reported out of 105 contracts (default rate 2%). However, some case were reported in the informal jewel loan market, when the borrower expressed their inability to repay, then PML arranged for the sale of jewels and settle the contract. It is also noted from the Table that all the informal jewel loans were opened between 1985 and 1986,except the default contracts.

Table 3.14 : Distribution of Outstanding Borrowing According to Defaulters in Formal and Informal Sectors.

	1981	1982	1983	1984	1985	1986	1987	Total
Total Number of informal Borrowing	1	-	1	-	9	19	16	46
Defaulted	1	-	1	-	-	-	-	2
Renewed loans	-	-	-	-	2	5	-	8
Total Number of formal Borrowing	1	-	1	6	15	52	30	105
Defaulted	1	-	1	-	-	-	-	2
Renewed loans	-	-	-	2	2	18	-	22

Source: Same as in Table 3.6

This indirectly shows the duration of informal jewel loans which is around two years. While in the formal sector, there were six contracts which were opened in 1984 but not yet closed in 1987.

Therefore, the expected duration of the formal jewel loans are around three years. In other words, if the rate of interest is high in the informal jewel loan market, varying between 24 to 36 percent, then the duration of loan is shorter. The rate of interest of the formal jewel loans is low varying within the range of 8 to 18 percent, and their duration is relatively long.

3.4. Conclusion

In sum, the analysis of the village survey data clearly reveals that the informal jewel loans are an important part of rural credit scenario in Kerala. It is also observed that jewel loans are prominent in both formal and informal sectors. Although the general characteristic of low default rate in jewel loans are same in both sectors, in certain respects, they do vary. In the formal sector, the rate of interest and the loan amount are regulated. This is not so in the informal sector where the rate of interest remains unchanged over long period but the loan amounts are primarily determined by the inter play of market forces in the form of gold price movements.

CHAPTER 4

THE DETERMINATION OF LOAN AMOUNT (L/P) AND RATE OF INTEREST IN THE INFORMAL JEWEL LOAN MARKET.

The previous two chapters showed that gold (jewel) loans occupied a prominent place in the rural credit market of Kerala. Three important findings of the previous chapter were that (a) the defaults were very rare in the gold (jewel) loan markets, (b) in informal jewel loan market, the rate of interest was invariant over a long period and (c) the loan amount was the varying factor which varied according to the movement of gold price. With the evidence on low default in jewel loan market, the existing theories are not of much relevance in answering questions regarding the determination of the amount of loan advanced per unit of gold and the rate of interest.

The purpose of this chapter is to look at these questions. It is organised into four sections. Section 1: sets out the theoretical values for the duration of loan, rate of interest and the loan amount as a proportion of price of gold (L/P) of the informal jewel loan market. Section 2: deals the issue whether the theoretical values of rate of interest are in conformity with the observed rates of interest. In section 3: an attempt is made to test whether the theoretical values of L/P, are in conformity with the observed L/P, for a given duration of loan and the rate of interest. Also, we look the factors which contribute to the random fluctuations of observed L/P. Section 4: is the conclusion.

1. The Theoretical Values of Duration, Rates of Interest and the L/P

Narayana (1994) questions the assumption of forced default based on an important observation of Baker (1984) regarding the Tamilnadu rural economy.

> "In late 1931, following the British government's retreat from the gold standard, there were enormous sales of gold from India. Between 1932-3 and 1934-5, Madras made a net export of treasure to the extent of 8 crores. Much of it undoubtedly came out of the hoards of banks, traders and cultivators involved in the pyramid of rural credit. The retreat from the gold standard meant that the sellers made a considerable profit on the sum which they have paid for the gold in recent years, but this immediate profit-taking disguised a long term loss of security. Gold had always formed one of the most important forms of security offered in the rural money-market and thus sale of gold meant a loss of capacity to borrow".
>
> (Baker,C.J 1984, p: 302)

It is evident that confiscation of the gold pledged by forcing default would lead to reduction in the capacity to borrow, thereby affecting money lending as an "on going" business. The empirical evidence on the Kerala villages provided in Chapter 3 confirms this observation. Default is rarely encouraged. Once forced default is removed as a basic building block of the determinant of the loan advanced, other lines of argument have to be pursued.

In the jewel loan market, the standard credit market assumptions of asymmetric information and uncertainty are not valid as the market price of gold is known to both the lender and the borrower. Also, there is no rationale to think of a situation of underpricing the collateral by the professional money lender(PML). That is, if default is against the interest of the PML, what is the

other purpose of undervaluation?. Also, since the rate of interest is given (no implicit rate of interest), the PML doesn't have any mechanism at his disposal to undervalue the collateral. Therefore, the PML maximises his return by advancing the maximum loan amount per gram of gold (L) at a given market price (P), known to both the lender and the borrower (here we assume a static situation), at a given rate of interest (r).

If $L>P/(1+r)$, then the borrower would have no incentive to repay at the end of the duration of loan. It would be the borrowers interest to default. By defaulting he would be able to buy the same quantity of gold for a lower amount.

Therefore, $L \not< P/(1+r)$.

As 'r' is given, for any $L < P/(1+r)$, the PML does not maximises his income. Hence, the condition for income maximisation is

$$L = P/(1+r).$$

According to Borooah. V (1980), price of the loan and size of the loan are two instruments before the lender. Will he choose high 'L' and low 'r' or a low 'L' with high 'r'?. An answer cannot be given from the condition $L = P/(1+r)$. There are two variables to be determined but there is only one equation. Narayana (1994), closes the model by setting up a highly simplified demand function for gold loans. The demand is seen as a function of L/P and he derives values of L/P and 'r' for various loan durations as shown

in Table (4.1). Therefore, it is observed that PML maximises his return by advancing half of the market price of gold as loan amount (L).

Table (4.1) Loan amount as Proportion of Price of gold and Rate of Interest for Different Time Horizons.

Time Horizon (year)	Loan as Proportion of gold price (L/P)	Rate of Interest (r)	%
1	0.5000	1	100 %
2	0.5625	1/3	33.3 %
3	0.5787	1/5	20 %
4	0.5861	1/7	14.3 %
5	0.5905	1/9	11.3 %
10	0.6087	1/19	5.3 %

Source: D Narayana (1994)

Table (4.1) shows that the loan amount as the proportion of gold price (L/P) varies within the range of 0.5 and 0.6. That is, the rate of interest crucially depends on the time horizon the lender has in mind, that is, the duration for which the loan is offered. In other words, If the money lender charges high rate of interest, the loan amount would be given for shorter duration and vice-versa. The data collected from the households in the four villages presented in the Chapter 3 doesn't provide information about this time horizon from the point of view of the lender. Therefore, some information had to be collected from a few money lenders.

The purpose of the data collection is to (a) estimate the duration or time horizon the lender has in mind and then show that

the observed 'r' is in conformity with the theoretical 'r'.
(b) taking the observed 'r' as the indicator of time horizon, to test whether the observed L/P is in conformity with the theoretical L/P, and then, we analyse what are the sources of variations in the loan amount apart from gold price.

The Data set

The empirical estimation and the testing of following sections are based on the primary data collected from a few PMLs. The data are collected from the two rural PMLs, one semi-urban PML and four urban PMLs who are carrying on their lending business around Thiruvananthapuram city in Kerala State. We have collected information at least 30 loan contracts from each PML at two time points. One is at which the loan contracts were closed at the end of December 1993 and the other is, the loan contracts which were opened at the end of December 1990. The rationale behind this kind of time classification are the following. The money lender may not keep records of old loan transactions. Therefore, the forgoing year's (1993) closed loan contracts were identified along with its opening date. The time difference between these two dates give the duration of loans. But the computation of durations from the closing dates have a serious problem, since these contracts were opened at different years and the L/P ratio can be influenced by the gold price of the respective time points. Hence, we have taken the loan contracts which were opened with in a short period, say end of December 1990, so that at the end of December 1993, the lender normally would take decision regarding these loan contracts,

if they were not closed before that time. Therefore, the reference periods for our data collection are end of December 1993 and 1990.

The information collected from PMLs consist of, the year and month in which the loan contract were closed and opened. This would give the average duration of loans when it is weighted with loan amount (L). The rate of interest, quantity of gold pledged, the market price of gold (P) and its valuation by the lender (Ps), loan amount (L) and whether the 'L' is given on the basis of personal knowledge have also been collected. The logic behind the collection of these information are as follows. It was observed from last chapter that, there are wide variations in the loan amount across the clients. They are contributed by two factors. One is the low demand relative to the value of the asset owing to the indivisibility of jewel which reflects in high quantity of gold with low loan amount (L). This factor would depress the L/P to a lower level. The second variable, the personal knowledge of the lender about the borrower which will push the loan amount to a higher level. Information on an important question was also collected from the money lender: did he consider any default during the reference period. This would give the answer to the question of how long the money lender will hold the pledge?. Therefore, the default cases are a clear indicator of lender's decision regarding the duration.

The loan amount as proportion of the price of gold (L/P) is computed from the amount advanced divided by the market price of quantity of gold pledged. It has to be noted here that we do not know what is the amount demanded and the number of pieces of jewels

Table 4.2a: Behavior of the Rural, Semi-Urban and Urban PMLs

Duration (year)	Number of loans closed at the end of 1993			
	Rural PML1		Semi-Urban PML3	
	A	B	A	B
5 < d	1	0	0	0
4 < d < 5	3	0	0	0
3 < d < 4	2	0	0	0
2 < d < 3	7	0	9	2
1 < d < 2	6	0	18	0
.04< d < 1	12	0	25	0
Total	31	0	52	2
Rate of inter:	30 %	-	36 %	36 %
Avg:duration *	1.74	-	1.13	2.26
Avg:L/P	0.44	-	0.43	0.44
Maximum L/P	0.58	-	1.13	0.46
Minimum L/P	0.25	-	0.14	0.42
C.V of L/P	15.8	-	37	-

Table 4.2b: Behavior of the Rural, Semi-Urban and Urban PMLs

Duration (year)	Number of loans opened at the end of 1990									
	Rural PML2		Urban PML4		Urban PML5		Urban PML6		Urban PML7	
	A	B	A	B	A	B	A	B	A	B
3 < d < 4	0	0	0	0	0	0	0	0	0	0
2 < d < 3	6	0	0	7	0	5	0	0	0	0
1.5 < d < 2	6	0	0	2	1	1	0	2	0	3
1 < d < 1.5	5	0	3	0	1	0	0	0	1	0
0.5 < d < 1	6	0	9	0	8	0	4	0	6	0
.04 < d < 0.5	16	0	27	0	20	0	25	0	36	0
Total	39	0	39	9	30	6	29	2	43	3
Rate of inter:	30 %	-	30 %	30 %	30 %	30 %	36 %	36 %	39 % #	39 %
Avg: duration*	1.01	-	0.37	2.3	0.38	2.12	0.31	1.92	0.27	1.75
Avg: L/P	0.468	-	0.38	0.51	0.45	0.53	0.43	0.52	0.45	0.55
Maximum L/P	0.59	-	0.73	0.75	0.64	0.56	0.73	0.54	0.79	0.59
Minimum L/P	0.29	-	0.15	0.25	0.21	0.5	0.16	0.5	0.16	0.5
C.V of L/P	16.7	-	32.5	27.8	28.4	12.6	26.7	-	24.7	-

Notes:

1. # This PML is charging at a rate of interest, 36 percent, but, when it is adjusted for six month compounding rate, it become 39.23 percent.
2. A, B denote non-defaulted and defaulted loans respectively.

Source: Estimated from the Primary Survey Data.

pledged. The weighted average duration* of the loans is calculated by (L1.d1 + L2.d2 + L3.d3 +... + Ln.dn)/ (L1 + L2 +... + Ln), where L1, L2, L3... Ln are the loan amounts per account which are given for the durations d1, d2, d3...dn. (see Table 4.2a, 4.2b)

From the above available information, in next two sections, we try to test whether the observed 'r' is in conformity with the theoretical 'r'. and whether the observed' L/P' is in conformity with the theoretical 'L/P'.

4.2 The Testing for Theoretical Values of Rates of Interest.

It is observed from the Tables (4.2a, 4.2b) that the rate of interest prevailing in rural informal jewel loan market is 30 percent. In semi-urban and urban areas, the rates of interest varied between 30 to 39 percent. The weighted average of duration of non-defaulted loans are 1.74 and 1.01 years for rural PMLs, 1.13 for semi-urban PML and 0.37, 0.38, 0.31, 0.27 years for urban PMLs. While comparing the observed rate of interest with the weighted average duration of non-defaulted loans of all PMLs, it is very clear that higher the rate of interest, shorter the average duration and lower the rate of interest, longer the duration.

The average duration of non-defaulted loans as computed above doesn't give an appropriate picture of lender's duration because most of the loans are repaid within less than one year (more than 50 percent of loan contracts). That is, the average duration of loans weighted with the loan amounts could be misleading because it is a result of borrowers voluntary closure. The borrower wants to

redeem the pledge as early as possible. That is why, most of the loan contracts were closed very early and hence weighted average duration of non-defaulted loans reflects only borrower's convenience. Therefore, we have to separate the borrower's voluntary closure accounts (non-defaulted cases) from the lender's loan portfolio and thereby, find out lender's duration.

In short, the only alternative before us is to set out the lender's expected duration (time horizon) of loans by looking at the default cases of his loan portfolio. That is, the lender's duration of the loan is up to the point of time beyond which the contract is considered as default, Therefore, the duration of default cases actually convey the time horizon of the money lender. However, there are some money lenders, like rural PML, who reported that no default cases. In the case of rural PML, out of the 31 contracts which were closed at the end of 1993, the duration of 6 contracts (20%) were more than three years. Hence there is a problem in taking average duration. Also, this clearly substantiates our argument that the forced default is against the interest of money lender and the defaults were very rare in the informal jewel loan markets especially in rural areas.

According to our theoretical proposition, if the rate of interest is higher than 33 percent, then the default would be reported even before two years and if the rate of interest varies within the range of 20 to 33 percent, it would happen only between two to three years. Already we pointed out that during the reference period no default cases were reported by rural PMLs, only a few cases were reported by urban PMLs.

Table 4.3 : Duration of Loans and Rates of Interest

PML	Observed Rate of Interest	Observed Duration of Defaulted Loans	Observed Duration of Non-defaulted Loans
Rural PMLs			
PML1	30	-	1.75
PML3	30	-	1.01
Semi-urban			
PML2	36	2.26	1.13
Urban PMLs			
PML4	30	2.3	0.37
PML5	30	2.12	0.38
PML6	36	1.92	0.31
PML7	39	1.75	0.27

Source: Same as in Table 4.2

While comparing the rate of interest and average duration of default loans of all urban PMLs, it is observed that there is an inverse relationship between the duration of loans and the rate of interest (see Table 4.3). Also, it is observed from the data collected from urban PMLs that, at rate of interest of 39 percent, the defaults took place very early, that is the average duration is 1.75 years. Similarly at low rate of interest of 36 percent, the defaults should take place only after 1.75 years but less than two years. It is observed that the weighted average duration of defaulted loans is 1.92 years. It is also noted that the observed rate of interest of two urban PMLs are 30 percent and their average duration of loans are 2.3 and 2.12 years. Since the observed duration falls within the range of lender's time horizon (at above 30 percent, the duration of loans should be less than two year and at below 33 percent, it should be between two to three years), the observed 'r' is in conformity with the theoretical 'r'.

However, the semi-urban PML whose rate of interest is 36 percent, reported that his duration of defaulted cases are above two years instead of less than two years. There are two plausible explanations for this: (1) One of the characteristics of rural informal jewel loan market is that the PML may hold defaulted gold relatively longer period because of his strong personal contact with all borrowers. (2) It was reported that the average observed L/P of defaulted loans was relatively low in the sense that the loan amount was less than half the gold price. Therefore, the semi-urban PML could hold the defaulted gold for a relatively longer period than the urban PMLs. Similarly, in the case of one urban PML who charged a rate of interest of 30 percent (it was reported that he started business very recently), it was observed that two defaults had occurred even before two year. This might be because of relatively high loan amount (above 70 percent), which is much higher than the theoretical value of loan amount.

In short, it has been observed that there is an inverse relationship between the duration of loans and the rate of interest of both defaulted and non-defaulted cases. Since the defaulted cases are an indicator of the lender's time horizon, we have tested whether the observed 'r' is in conformity with the theoretical 'r' by looking at the observed 'r' and the duration of defaulted loans. It has been shown that the duration of loans fell within the range of two to three years, when the observed rate of interest was less than 33 percent. When the rate of interest was higher than 33 percent, the duration of loans was between one to two years. It may be concluded that the empirical evidence substantiates our hypothesis.

4.3. The Testing of Theoretical values of L/P.

In section 1 , we have set out the theoretical values of the duration, rate of interest and L/P of the informal jewel loan market. In Section 2, we have derived the average duration of the loans, the lender has in mind and it was shown that the duration of loans was related to the observed rate of interest, which in turn derives from the lender's time horizon. In this section, an attempt is made to test whether the observed L/P is in conformity with the theoretical L/P, assuming the observed 'r' as the indicator of duration. And an attempt is made to look at the factors behind the random fluctuations of observed L/P.

The theoretical L/P is computed on the basis of given rate of interest 'r' and duration of loan 'd'. Therefore, once we know the rate of interest charged by the PML, we can easily compute the theoretical L/P. Here, we know the rates of interest of all sample PMLs which fall in the range of 30 to 39 percent.

Then the corresponding durations would fall within a narrow range around two years. Thus our empirical exercise reduces to testing theoretical L/P = 0.5625. In setting out the equation, three factors needs to be taken into account. Firstly, for the valuation of jewellery market price is not used. It is 10 percent lower than the market price (0.9) and hence the theoretical value = 0.5625 * 0.9 = 0.5063. Secondly, personal knowledge about the borrower (Dk) can push up the proportion and thirdly, indivisibility of the jewel may push down the proportion. The

above relationship can be expressed in functional form as given below.

$$(L/P)' = \hat{a} + \hat{b}\ (Q) + \hat{c}\ (Dk) + U$$

Where Dk = 1, if L is given on the basis of personal knowledge,

Dk = 0, if otherwise.

In our model, the quantity of gold pledged (Q) and the personal Knowledge (Dk) are the explanatory variables and (L/P)' is the dependent variable. $\hat{a}$, $\hat{b}$ and $\hat{c}$ are estimated from the observed values of theoretical L/P, quantity of gold and personal knowledge. We have to estimate the theoretical L/P (intercept) from the regression model. As often done, a dummy variable would be used to take the personal knowledge (Dk) about the borrower into account. The quantity of gold (Q) is considered as the other independent variable, since it capture the borrower's demand for loan amount (indivisibility of jewels).

We have attempted the regression analysis of observed L/P with specified explanatory variables for each PML separately. The results of the PML wise regressions are given below (see Table4.4).

The estimated values of theoretical L/P of Rural PML1, PML2 Semi-urban PML3 and Urban PML4, PML5, PML6, and PML7 are 0.43, 0.46, 0.43, 0.36, 0.43, and 0.44 respectively. Our null hypothesis that the theoretical L/P = 0.5063 (Ho: a = 0.5063) can be easily tested by computing t- ratio for each PML ['t' is estimated following the formula $t = \{ \hat{a} - a \} / S.E\ \hat{a}$]. Since t- ratios are

less than the t- statistic (at 5 percent level, see Table 4.4), the null hypothesis can be accepted at 5 percent level of significance. (However, in the case of PML4, the hypothesis is rejected at 10 percent level). Therefore, the estimated values are positive and not significantly different from the hypothetical

Table 4.4 Regression Results:
Functional form $(L/P)' = \hat{a} + \hat{b}\ (Q) + \hat{c}\ (Dk) + u$

Equations PMLs	Coefficient Values			R^2	Degree of Freed-om	Table (one tail) t- values	
	Inter-cept $\hat{a}$	$\hat{b}$	$\hat{c}$			5%	10%
Rural PML							
PML1	0.43 (1.09)	0.0016 (1.33)**	-	0.25	29	(1.69)	(1.31)
PML2	0.46 (0.59)	-0.0024 (-0.21)	-	0.20	37	(1.69)	(1.31)
SemiUrban							
PML3	0.43 (0.61)	0.0019 (0.54)	0.49 (7.0)*	0.47	50	(1.68)	(1.30)
Urban PML							
PML4	0.36 (1.32)**	0.0012 (0.44)	0.296 (3.7)*	0.38	37	(1.69)	(1.31)
PML5	0.45 (0.57)	0.002 (0.50)	0.262 (3.6)*	0.25	28	(1.70)	(1.31)
PML6	0.43 (0.76)	0.00027 (0.14)	0.22 (4.5)*	0.10	27	(1.7)	(1.31)
PML7	0.44 (0.68)	-0.00022 (-0.55)	0.26 (3.6)*	0.32	41	(1.68)	(1.30)

Notes: Figures in the parenthesis are 't' values,

* represent significance at 5 percent level.
** represent significance at 10 percent level.

Source: Estimated from the primary survey results

value (theoretical L/P is 0.5063) for all PMLs. In other words, the estimated L/P is in conformity with the theoretical L/P. This implies that the PMLs always try to offer the loan amount (L) to borrowers in conformity with the theoretical value which is about half of the gold price.

In explaining the variation in L/P, indivisibility of gold ornaments plays no significant role. The regression results show that the estimated values (coefficients) associated with indivisibility are negligible. However, two estimates (PML2 and PML4) have negative coefficient values which indicates that there is a possibility of inverse relationship between the quantity of gold and the loan amount because of the low demand of gold loan from borrowers. When we tested our null hypothesis (Ho: b=0), the estimated t-ratios are less than table value of t- at 5 percent significance level. Therefore, we accept our null hypothesis, which implies that the indivisibility of ornaments did not play much role to depress the loan amount in our samples. In other words, the borrowers try to obtain 'maximum' (ie, 0.5063) loan amount from their pledge.

In all the regression results (except in the case of Rural PML1 and PML2, since they know all clients personally), the explanatory power of the equation with personal knowledge dummy variable is very important and all coefficients turned out to be positive. Here, our null hypothesis (Ho) is c=0. Since, the calculated values are significantly higher than table value at 5 percent level, we reject our null hypothesis. That is, the

personal knowledge has a role in getting higher (above theoretical L/P) loan amount in urban and semi-urban areas (PML3, PML4 to PML7).

In short, it has been shown that the informal rates of interest are around 33 percent and corresponding average durations are around two years which is consistent with the lender's time horizon regarding the repayment of loans. Therefore, the theoretical value of L/P should be around 0.56. But the 'accepted' theoretical value of L/P is around half of the market price of gold (0.5063), when we take into account the resale value of jewels. (It was reported that the lender's valuation of jewels are on the basis of the secondary market price of jewels which is around 10 percent less than respective years market price of gold). That is why, all PMLs in the informal jewel loan market offer half of the market price of gold as loan amount against the borrower's standard (22 carat) jewels.

4.4 Conclusion

It was observed that once we know the rate of interest charged by the PML, it will be easy to determine his duration of loan and the advances of loan amount as proportion of gold price. That is, the duration of loan is derived from the rate of interest. Hence we have the theoretical values of L/P corresponding to each PML's rate of interest. Then we tested for the theoretical values of L/P with observed L/P along with considering all random fluctuations like personal knowledge, indivisibility...etc of the loan amount, it was accepted that generally the loan amount would be half of the

market price of gold. Therefore, the above analysis clearly shows that the market price of gold of corresponding years of loan contracts determines the loan amount per unit of gold. In other words, the loan amounts in the informal jewel loan market are determined by market force via the gold price movement. The rate of interest prevailing in the informal jewel loan market (it varies from 18 to 39 percent) crucially depends on the time horizon the lender has in mind, which is around three to two years. That is, if the duration of the loan is longer, the rate of interest will be at lower level and if the duration of loan is short, the rate of interest will be at higher. Since the rate of interest and duration of loans are given, we can say that in jewel loan market the loan amount is the dynamic factor. It was observed that the duration of non-defaulted informal jewel loans in rural areas is relatively long compared to urban jewel loans. Also, no default cases were reported during reference period. Therefore, default is very rare in rural areas.

CHAPTER 5

CONCLUSION

Informal credit markets continue to be prominent in many developing countries. In India, the expansion of formal credit has not reduced the importance of the informal money lenders considerably. Instead, they co-exist. This seems paradoxical. But, people are forced to depend significantly on informal sector for their credit needs. It is in this context the recent literature on credit markets focus on the informal sector.

Informal credit markets do not have a monolithic character. They vary from region to region. For example, gold is the most preferred asset in the formal and informal credit market of South India, especially in Kerala. But they differ in their operations. In the formal sector, the rate of interest and loan amount are regulated or centrally determined. But in the informal sector, the rate of interest remains unchanged over the years, but the loan amount is determined by market forces via gold price movements. The most important characteristics of gold collateral, is that it is perfectly marketable and that it lends itself to easy asset valuation by both lender and borrower. Also, there has been no uncertainty regarding the price of gold over the years.

Gold, as a collateral, is different from other (factor) general collateral. The theories on informal credit market have attempted to look at the issue from the point of view of underpricing of the collateral by the lender and thereby, the

forced default. But these explanations are valid only if the collateral is a factor of production or an output (crop) which offers a regular flow of income. In the case of asset collateral, it serves only for securing the principle and interest. Hence, any kind of loss (via default) from the existing stock of gold would ultimately affect the income of the lender, since his business entirely depends on the volume of the transactions.

In short, once we relax the assumption of forced default from jewel loan market, issues like what determines the rate of interest and the loan amount in the informal jewel loan market are left open. This study address these issues.

Empirical evidence shows that the incidence of rural debt had declined sharply at the All India level in the period 1971-72 to 1981-82. But during the period South Indian states, particularly Kerala, showed a sharp increase in the incidence of debt. A significant shift in favour of institutional agencies was also noticed. Nevertheless, it was observed that the share of trader/money lender in Kerala had not declined as drastically as in many states.

At the All India level, the most prominent category of rural debt was unsecured debt. However, in Kerala, the share of personal security was much higher than All India average (1981-82). The incidence of debt against bullion and ornament (jewels) in Kerala had increased over the period and was highest among the states and across the securities. But it was observed that the amount borrowed per reporting household against bullion and ornament was

one of the lowest among the different states. It indicates that the popularity of gold lies not so much in their overall quantum but in their spread as revealed by the high proportion of household (incidence) debt against gold and lower average amount per reporting households.

The significant decrease in incidence of debt of all rural households over the years is a clear indication of the squeeze in the size of the credit market. But, many studies have showed the limitations of AIDIS estimates, namely under estimation, reliability and comparability. Our demand side and supply side estimates of the incidence of debt and amount borrowed against jewels reveal that the estimates are not reliable or comparable and is inadequate in bringing out the magnitude of informal jewel loan market in Kerala.

The RBI study on commercial banks advances showed that the southern Indian states and Kerala in particular, accounted for lions share of the jewel loans in terms of number of accounts, distribution of banking offices reporting gold loans, number of advances against gold as a percentage of total accounts and amount advanced. The purpose wise distribution of commercial bank's jewel loans showed that the proportion of gold loans for agricultural purpose was low in Kerala. This implied that the gold loans in Kerala was advanced for other purposes. However, it was observed that the major share of direct finance to agriculture in Kerala was advanced against jewels. The significance of jewel loan in the portfolio of commercial banks indicates dependence on collateral based lending. But these observation were only for a single point

of time. Hence, the data on co-operative credit societies were used to provide some idea about the trend in jewel loans.

The distribution of co-operative credit by security, at two time points, showed that the loan against gold and silver is significant only in Kerala and Tamil Nadu. It was observed that the growth rate of gold loans have usually been above the growth of outstanding credit except in a few years. This indicates that the co-operative societies in both states had shown an increasing tendency towards advancing loans against the security of gold.

The primary data on the informal credit market in kerala, reveals that the structure of credit market in the villages studied broadly conform to the pattern brought out by the AIDIS data. The share of informal lenders, especially the agricultural money lenders and traders, had suffered a set back, But the role of relatives and friends in the credit scenario of all villages was found to be prominent. The most interesting fact was that in those villages where PML had been dominating, gold (jewel) was the most preferred asset. The survey also showed that the jewel loans are very important in the portfolio of formal and informal lenders. The incidence of debt and amount borrowed against jewels was a clear indicator of lender's bias towards jewel loans

Nevertheless, operation of jewel loans in formal and informal sector are different. It was observed that, in the formal sector, the rate of interest ranged between 8 percent to 18 percent. It varied inter-temporally as well as purpose-wise. But the loan amount advanced against quantity of gold pledged did not respond

very well to the market price of gold. In most cases the loan amount was less than 50 percent of the market price of gold or jewel pledged. But in informal jewel loan market, the loan amount advanced against the security of gold responded to the market price of gold. It was reported that the average loan amount came to around 50-60 percent of gold price in the respective years. The rate of interest charged by them was higher than the formal sector and varied between 18 percent to 36 percent. But the rates of interest did not show any inter-temporal variations as well as across the clients.

It was also observed that the defaults were very few in both sectors. Since the rate of interest of informal jewel loans were higher than the formal jewel loans, it was indirectly observed that the duration of informal jewel loans are shorter than formal jewel loans. Therefore, in the jewel loan market, there is a trade-off between duration of loan and rate of interest.

The theoretical formulation of duration of loan, rate of interest and loan amount in the informal jewel loan market was attempted in the light of low default in the jewel loan market. Since PML doesn't have any mechanism to undervalue the collateral, his only objective is to maximise his income by advancing 'maximum' loan amount for a given price of gold. This 'maximum' loan amount is called theoretical L/P (loan amount as a proportion of gold price). If we know the rate of interest of PMLs, we can derive their corresponding theoretical values which vary within the range of 0.5 and 0.6 and demand for jewel loan is function of their theoretical L/P. In other words, for every theoretical

(hypothetical) rate of interest which in turn is derived from the time horizon of the lender, there is a corresponding theoretical L/P within the range of 0.5 and 0.6. Therefore, the rate of interest in the informal jewel loan market crucially depends on the time horizon the lender has in mind. If the money lender charges a high rate of interest, his duration of loan will be relatively short and vice-versa. That is, duration of loan and rate of interest are inversely related.

The observed values were tested to find whether they are in conformity with the theoretical (hypothetical) values. The defaulted cases revealed the time horizon the lender had in mind regarding loan repayment. When we compared the observed rate of interest with average duration of defaulted loans, it was noticed that there is an inverse relationship between observed duration of loans and observed rate of interest. The observed duration of loans (defaulted) fell within the range of lenders's time horizon of around two years. therefore, the observed 'r' is in conformity with theoretical (hypothetical) 'r.

It was shown that the duration of loans of sample PMLs are around two years and their rate of interest is around 33 percent, the corresponding theoretical L/P is 0.562. We have tested, whether the estimated L/P is in conformity with theoretical L/P(0.5625). However, when we adjusted this value with market price of jewels (0.9), the 'accepted' theoretical L/P would become 0.506. It was observed that the observed L/P can be different from the theoretical L/P due to various factors like personal knowledge, indivisibility of jewels. Therefore, we have taken these factors

into our model and tested for theoretical values. The regression result showed that there is no significant difference between the theoretical L/P and the observed L/P. Therefore, all PMLs, (who charge a rate of interest around 33 percent) in informal jewel loan market offer half of the market price of gold as loan amount. Thus, it is seen that the loan amounts in the informal jewel market are determined by the market force via the gold price movement.

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